The SHIPPING WORLD

AND SHIPBUILDING & MARINE ENGINEERING NEWS

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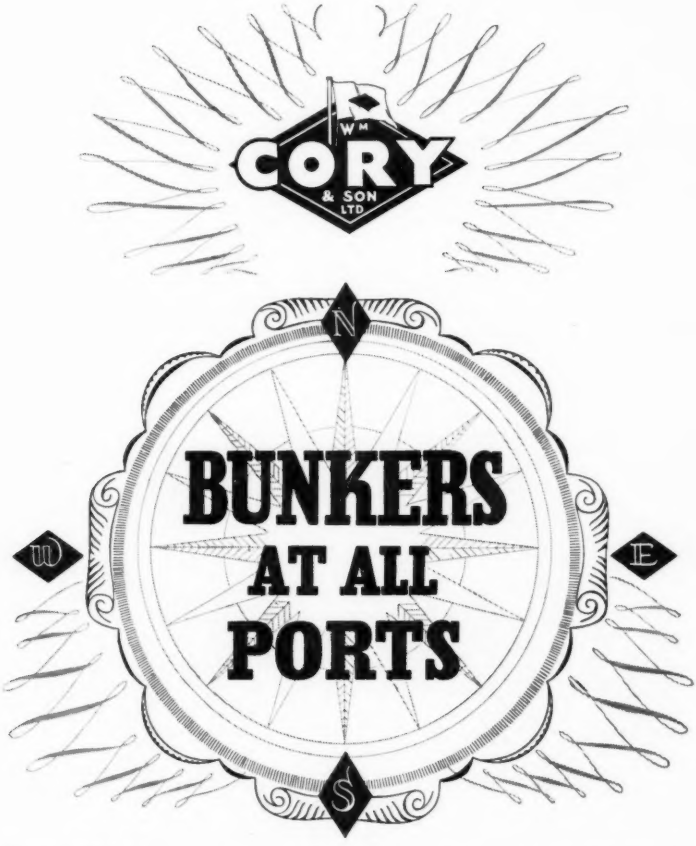

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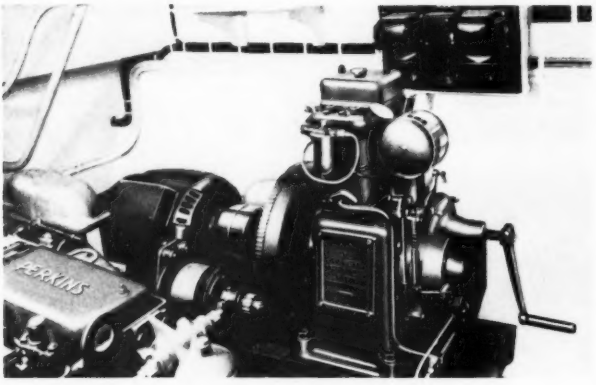

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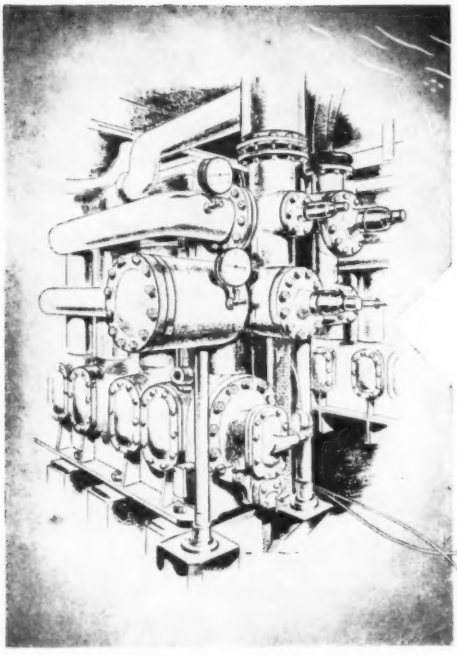

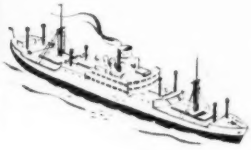

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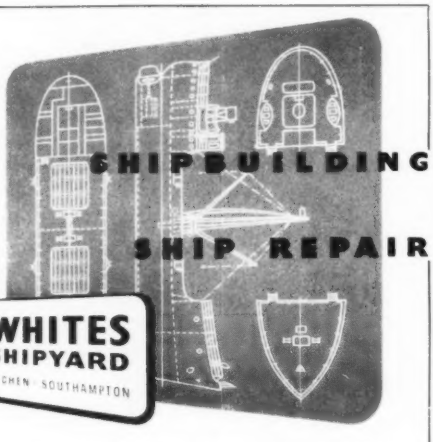

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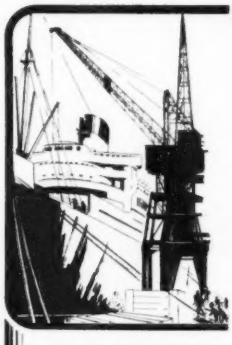

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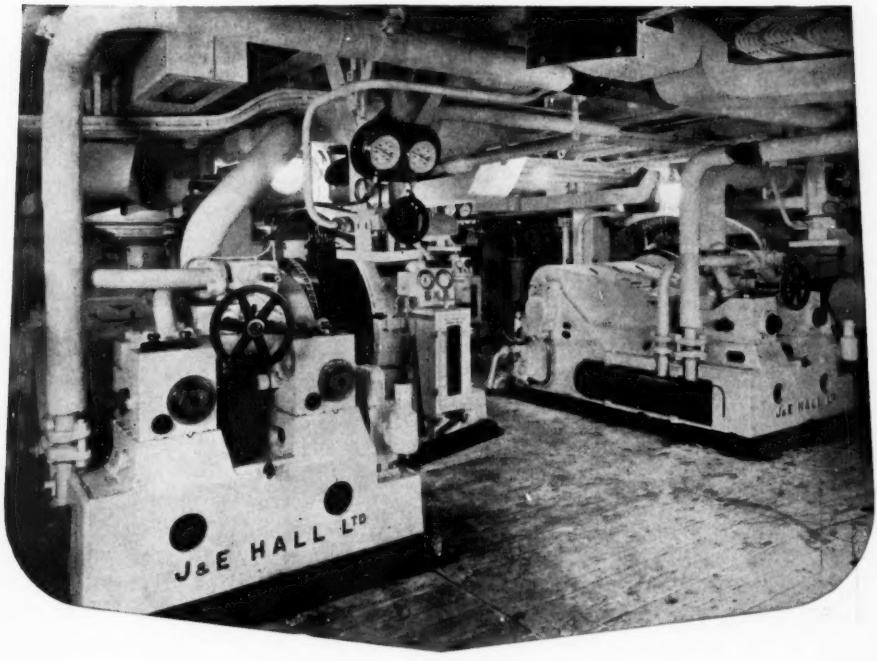

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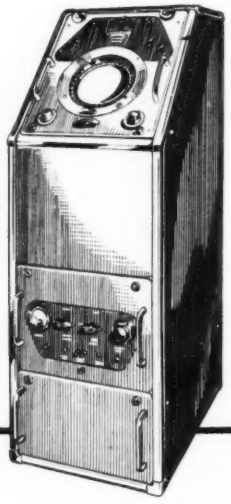

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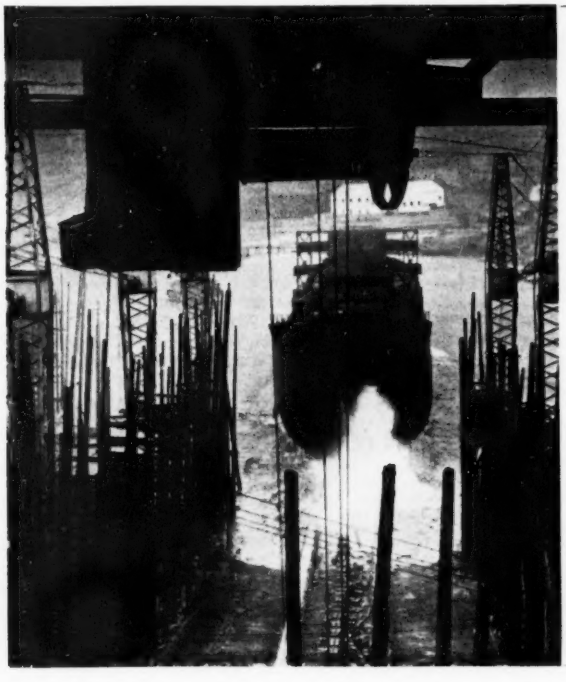
Fair Weather—and Foul	419	Seating Arrangements for Safety	431
Current Events	419	Views of the *Ocean Monarch*	432
On the "Baltic"	423	Round the Shipyards	434
Festival of Britain	424	British Industries Fair—II	434
German Shipping Developments	426	Cargo Vessels with Machinery Aft	435
Coal and Oil	427	Book Reviews	435
Recent Publications	427	Official Notices	435
Danish Shipping and Shipbuilding	428	Pictures	436
Flight Refuelling	429	New Contracts, Trial Trips	437
Aircraft Brokers' Association	430	Maritime News in Brief	438



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"The Price of Peace . . ."

Mr. H. T. N. Gaitskell, Chancellor of the Exchequer, introducing his 1951 Budget

BUDGET COMPARISONS

1914 (Mr. Lloyd George)	**1939** (Sir John Simon)	**1951** (Mr. H. T. N. Gaitskell)
REVENUE	REVENUE	REVENUE
£209,455,000	**£942,600,000**	**£4,236,400,000**
EXPENDITURE	EXPENDITURE	EXPENDITURE
£209,203,000	**£942,444,000**	**£4,196,921,000**
EXPENDITURE FOR DEFENCE	EXPENDITURE FOR DEFENCE	EXPENDITURE FOR DEFENCE
Army - **£28,885,000**	Army - **£83,087,000**	Army - **£418,800,000**
Navy - **£51,550,000**	Navy - **£69,399,000**	Navy - **£278,500,000**
	Air - **£66,561,000**	Air - **£328,750,000**
	Civil Defence **£20,000,000**	Ministry of Supply (Defence) **£81,500,000**
		Ministry of Defence **£6,212,000**

All above figures were "estimated"

Comment by *The Times*, April 1st, 1914—

"The prospect is not a pleasant one from any point of view."

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THE SHIPPING WORLD

FAIR WEATHER—AND FOUL

THE barometer seems to be set fair for the maritime industries at the moment. The investor can see that the big liner companies have been increasing their dividends, and the Chancellor of the Exchequer looks benignly on these "modest increases," since they also have the effect of pouring more money into the Treasury. The Chamber of Shipping freight rate index has climbed to the unprecedented height of 180.6, well over twice the average figure over the whole of last year. Not a single tramp ship that will float can fail to find employment at a remunerative rate, and most vessels are chartered well ahead. The tanker companies are flooding the shipyards with orders for new vessels, and the shipyards in the United Kingdom are as busy as they have been at any time since the end of the war. The flow of orders to the yards so far this year has been almost without precedent, and they have work to keep them fully employed for several years. Why, then, is it that the Chancellor of the Exchequer should have created so much dismay in the shipping industry by his blithe abandonment of the initial depreciation allowances?

The reasons lie deeper below the surface than the first glance can penetrate, and it is necessary carefully to analyse the apparently favourable factors that attract most attention. The slightly increased dividends that have recently been paid by shipping companies, in common with most other industrial concerns, represent only a small return for money invested in years when dividends were strictly limited, and over that period the value of money, it must be remembered, has declined. The tramp freight index, too, contains a formidable element of rising costs in the operation and maintenance of merchant ships, and when comparison is made with the base year of 1948, due allowance must be made for the rises in wages, bunker prices, port charges, and so on, and for the increasing delays experienced in port. The scarcity of tramp tonnage has been induced partly by the mismanagement of bulk buyers and sellers, and partly by the equally abnormal demands of the rearmament and stockpiling programme. The liner companies, it must not be forgotten, do not benefit by the rise in tramp rates; on the contrary, they are the losers. The movement of the freight index, on the other hand, serves to emphasise the weakness of the dry-cargo tonnage position, for one-quarter of the British dry-cargo fleet is over 20 years of age, and nearly one-seventh of it is over 25 years old. These ships have only a strictly limited lease of life to run, and in more competitive conditions would soon be put out of action by the more modern and economical ships which are coming into service under foreign flags because they receive big depreciation allowances from their Governments.

The fact that the shipyards have plenty of work in hand is no argument that shipowners do not need this allowance from the Treasury. In the first place, one-third of the orders are for foreign owners, and most of the rest are for tankers. In the second place, the huge orders for tankers which have recently been placed come from the big oil companies, which have financial reserves and resources incomparably greater than those of the shipping companies. Thirdly, almost all the orders now in hand were placed before the Budget, when shipowners were relying on the 40 per cent initial allowance. In fact, there are insufficient orders to maintain an adequate rate of replacement for the British dry-cargo fleet, and this is a matter which merited the attention of the Mercantile Marine Service Association in its annual report. It rightly attacked the present heavy taxation system which prevents shipowners from setting aside, before taxation, profits which are needed for the replacement of obsolete ships at enhanced values. Seafarers, as well as shipowners, realise that theirs is an international industry, and that it cannot be treated broadly in the same way as purely internal industries for taxation purposes. The Minister of Transport knows this, but he has failed to convince his colleagues in the Treasury, judging from their actions. It now remains, as the last resort, for the industry itself, through the General Council of British Shipping, to press its claim personally on the Chancellor, who can, it is to be hoped, be relied on to appreciate that the long-term prospects of the shipping industry are not so sunny as might at first appear.

Current Events

Persia's Dilemma

COMMUNIST propaganda in Persia has been more successful than British propaganda, as the course of events in recent weeks has proved. The great mass of the people of that friendly country has been misled in the most grievous manner and, unless they are told the truth before it is too late, they will face little short of ruin. As the Foreign Secretary has remarked—unfortunately in London and not in Teheran—"during the past 30 years the Anglo-Iranian Oil Company, on the strength of contractual obligations, has made in Persia an immense investment which must be assessed in terms not only of money but of scarce material and technical skill." As he pointed out, it has built up an industry which is the main stabilising factor in Persia's economy, and has provided employment for tens of thousands of Persians and created employment for many more. Mr. Morrison added: "Any interruption in the company's operations would inevitably result in unemployment, and a creation of just those conditions from which Communists could profit." The truth which Ministers in this country

have been slow to realise fully is that we are engaged in a hot war against Communism in Korea and Malaya, while rebellion is being fomented in Indo-China and elsewhere and, on the other hand, a cold war is being waged in Persia, Egypt and throughout Western Europe. The aim of the Communists is to impoverish the world and create conditions in which Communist agents can work with success on land, at the waterside and on board merchant ships under all flags.

A State of Mob Rule

It is no exaggeration to state that Persia is existing under mob rule. The people have been left in ignorance of the peril which confronts them if they persist in pursuing the policy of nationalisation. The facts have been stated succinctly by the *Financial Times*. "The Anglo-Iranian Oil Company is virtually a worldwide organisation, owning valuable assets outside Persia for the marketing of its oil; most important of these in a physical sense are the refineries in this country and elsewhere and its fleet of tankers. But equally important from an operating point of view is its selling organisation." As our contemporary has remarked, "the total loss of Persian oil production and of the refineries in Abadan—in the extreme case—would be a serious but not a disastrous one for the company. Persian oil production has expanded rapidly and the proved reserves are great; but it still only accounts for some 6 per cent of world oil production." The fact is that the ownership of the Persian oil fields and of the refining capacity in Persia would be useless to the Persian Government without access to the world markets—to say nothing of the technical skill required for operation. It is the sober truth that unless it retains the goodwill of the company, the Persian Government runs the risk of losing practically the whole of its revenue. "To take the extreme case again, all the legislation in Persia cannot bring it the physical possession of the assets of the Anglo-Iranian Oil Company outside Persia." The cardinal error has been that the British Government did not take steps long ago to educate the Persians, reminding them that they will be the losers if they persist in seizing property which is not theirs and of which they can make no profitable use without expert technical advice, the use of a great fleet of tankers and a sales organisation which extends all over the world. If the British Ministers, late though it is in the game, play their cards adroitly, they can yet win.

Shipbuilding Active

More than one-third—to be precise 40.67 per cent—of the merchant ship tonnage now building in the world is under construction in the yards of Britain and Northern Ireland, and orders have been booked which will ensure future employment for many months ahead, well into 1953 at least—if adequate supplies of steel, timber and equipment are forthcoming in due season. One popular newspaper, in recording the latest figures of Lloyd's Register, headed its article "Ships Queue up as Building Booms". It is a fact that never before has the flow of orders been so large as in recent months. This has no doubt been due to a variety of causes, stockpiling and bulk buying among them, as well as the slow turnround in most ports of the two hemispheres, and the interference with the smooth flow of trade over the seas owing to flag discrimination. Real freedom of the seas is a thing of the past. Ships are to a great extent pawns which are moved about by planners sitting in offices who purchase goods with little thought of their movement to the places where they are required. There is today, and will continue to be for a long time unless better counsels prevail, a world shortage of tonnage, with the result that freights continue to rise. This movement is a cause of irritation to many people who do not realise that shipping is still an international trade in spite of all the nationalism which prevails today. As Canute could not control the onrush of the waves, so no planners, however clever, can check the movement of rates, as the Ministry of Transport well appreciates. So, as there is a scarcity of tonnage, and especially of ships for the carriage of oils in bulk, owners have placed large orders in the past few months, even though they cannot expect delivery for a long time. At one yard on the Clyde it was reported the other day that 17 keels were waiting to take the place of a vessel which had just been launched. And there is no sign that the demand for new ships is abating, even though fixed prices and certain dates of delivery cannot be assured. We believe the historian will declare that the present situation is unique.

Full Order Books

The figures of Lloyd's Register repay examination. Just over 2,000,000 tons gross of shipping were under construction in United Kingdom shipyards at the end of the first quarter of the year, 28,035 tons more than at December 31, and 3,024,361 tons were under construction in foreign shipyards—250,296 tons more. That is most satisfactory, but it is not the whole story. Order books now contain a big reserve of tonnage to follow on. In the first three months of this year tonnage for which plans were approved or material ordered was increased from 954,486 to 1,414,309. In fact, orders for over 1,500,000 tons gross of shipping were received by British shipbuilders during the period, bringing the industry's holding of orders up to 5,000,000 tons of an estimated value of £435 million, of which nearly two-thirds has still to be laid down. More than half the tonnage in hand or on order in this country consists of oil tankers, a significant reflection of the rearmament movement, for war is largely a matter of oil supplies. In terms of numbers of ships, two vessels in every seven now building are tankers. No less than 1,152,323 tons gross of such shipping were under construction at the end of March, that is 58.2 per cent of all such tonnage being built in the world, and 55.6 per cent of the shipping of all kinds being built in the United Kingdom. Foreign yards are very much less busy with tankers, only one vessel in ten building being a tanker. It is a gratifying feature of the shipbuilding position that recently more cargo liners and tramps have been ordered, while contracts have also been placed for some coasting vessels. We must still wait for the laying down of keels of what may be described as "handy ships," of which few have been built for many years. They were the backbone of this country's economic strength in the past and a good many informed observers believe that for use in peace and war, and especially in war, they have a role to play. Whether that opinion is or is not well founded, the coming months will show.

Ships and Rearmament

Shipbuilders have an overwhelming claim to special consideration when it comes to allocation of material. An island cannot exist in war or in peace unless it has plenty of ships at its disposal. If it is to live and work it must exchange exports for imports; we export ships, the orders on the books today for overseas owners being of a value of about £150 million. Again shipbuilding is an assembly industry. It provides work for practically every trade in the country, for a modern ship has to have all the amenities of comfort that men and women like to enjoy in their homes. If account be taken of all the craftsmen, from miners up the scale, who are concerned with shipbuilding, it becomes apparent that the shipbuilder employs, directly or indirectly, no mean part of all the workers in this country and insofar as ships are exported, he supports the export drive, the success of which was never more essential than at this crisis. For let there be no mistake. We are facing many months of crisis owing to the fact that our import prices are rising more rapidly than our export prices. Every month the gap increases. Little is said of this movement in the latest *Economic Survey*, perhaps because the planners do not

care to be reminded that there are forces beyond their control, including the law of supply and demand. Shipbuilders help to fill this gap insofar as they supply tonnage to overseas customers. But their paramount claim to consideration is that an island people must have ships in order to survive. In time of war those ships are exposed to enemy attack, as we have learnt to our bitter cost. A great deal is heard of Russian submarines. The rumours may be exaggerated and, in any event, the Russians have never distinguished themselves as seamen. But to be forewarned is to be forearmed. Ships must be regarded as a first priority in the rearmament programme—more important than tanks or aeroplanes.

American Port Practice

AN INTERESTING account of American port practice was given to a convention of the Industrial Association of South Wales & Monmouthshire recently by Mr. L. G. Taylor, assistant chief docks manager, South Wales Ports (D. & I. W. Executive) on his return from a visit across the Atlantic. He reminded his listeners of the fundamental differences, which we are apt to forget, between American and British or Continental port practice. By reason of the almost negligible tide range, the Americans had not been obliged to build costly retaining walls and locks, so that there were no port owners or authorities in the same sense as in the United Kingdom. Most American ports are piers built out into the open water of river mouths, owned largely by the railway companies, but partly by municipalities or commercial companies. Only a minority are owned by a port authority. Most piers are leased to shipping companies or contractors, who supply and operate all equipment. Channel dredging is a Federal charge, being performed by the U.S. Army Engineering Corps. An almost complete lack of quayside cranes is another fundamental difference, ships' gear being almost exclusively relied on for cargo working. There is no registration scheme for port workers, and in New York, for example, there were said to be 42,000 workers available for an average daily employment of about 25,000 men. There is no guaranteed wage beyond an hourly rate for a four-hour minimum and men are still selected by individual operators' representatives, as was the case here before decasualisation. Discipline is good, and men will always work overtime except on Saturdays, and even then if a ship requires finishing. American ports, too, have no use for piecework, the theory being that it tends to increase the risk of careless handling and consequent damage. Mr. Taylor noted the extensive development of mechanisation in shore work, but thought it was no further advanced in ships' holds than in Britain.

South Wales Port Cooperation

REFERRING to the future of the South Wales ports, Mr. Taylor deprecated a tendency to revert to individual and separate action by the ports. It was essential, he thought, for them to speak with one voice, particularly when fighting for common principles, such as were involved in the f.o.b. problem. They must watch also that preferential rates and conditions had no part in the new rates structure proposed by the Railway Executive, and the same applied to the new dock charges scheme and road haulage scheme proposed by the respective Executives. He thought the support of liner owners would also have to be sought by getting them to adopt a common practice in relation to the shore services included in freight rates. In conclusion, Mr. Taylor referred to the arrangement at Liverpool, whereby shipowners can lease sheds, in which they can employ their own staff and establish their regular organisations. If the South Wales ports were to succeed in attracting so much traffic that liner companies sought leased and preferential berths, he thought this could only be done fairly by treating the South Wales ports as one group and offering preferential treatment at any of the ports where suitable accommodation was available. To bring this about, Newport, Cardiff and Swansea, particularly, would have to sink their parochialism to the extent of making the individual name secondary to the name of the group; common average rail, road and dock rates applicable to all South Wales ports within a certain radius would be necessary; and shipowners would require latitude from their conference arrangements to enable them to load at any port in the group.

Fleet Replacement Problems

THE ACCOUNTS of the Cunard Steam-Ship group for the calendar year 1950 must be read in conjunction with the accompanying review by the chairman, Mr. F. A. Bates, if they are to be correctly interpreted. The group operating surplus for the past year was £10,781,000 (against £8,895,000) and may prove to have been a peak figure. Devaluation brought the company passing benefits but has added greatly to costs on both capital and revenue accounts. Tax continues to dip deeply into group resources. The Exchequer has taken nearly £15,000,000 in the past four years and, in the year under review, the U.K. tax charge was £4,918,000. The next heaviest item on the debit side of the profit and loss account was the depreciation charge of £2,513,000. The net surplus of £3,478,000 (against £3,501,000), however, covered the dividend of 12½ per cent compared with 10 per cent about six times, so that the board, though sanctioning an increase in the dividend payment, properly remains conservative in its distribution policy. Indeed the dividend costs no more than £516,000 net, compared with £350,000 placed to pension provisions, with £2,495,000 transferred to reserves in the accounts of parent company and subsidiaries and £40,000 added to the carry forward. Fleet replacement remains at the core of the financial problems of the group. In this connection Mr. Bates pointed out that it would cost £120,000,000 to replace the fleet at current prices of new tonnage. This fact alone calls for conservation of resources. Long continued profit retentions have happily left the group finances in a healthy state. Reserves and the carry forward aggregate £28,715,000, or nearly four times the issued ordinary capital of £7,798,000. The net book figure for the fleet, at £28,724,000, is a moderate valuation representing £33 only per gross ton of shipping. Current assets of £31,914,000 include £10,663,000 in cash, £5,407,000 in tax certificates and £11,297,000 of quoted investments. Capital commitments of £3,200,000 should, therefore, involve no excessive straining of the liquid position. Devaluation has depleted the purchasing power of the group's accumulated reserves and excessive and unsympathetically levied taxes have drained away funds sorely needed to finance replacement. As the years go by more and more tonnage—including the two *Queens*—will have to be replaced. Stockholders should, therefore, be grateful that their directors have always placed first the securing of the long-term stability of this great shipping group.

Fivefold Cover

THE full accounts for 1950 of Elder Dempster Lines Holdings, Ltd., and accompanying review by the chairman, Mr. A. C. Tod, throw light on the group's recent experience in the West African and Canadian trades. Reserve and other adjustments of unstated amount and use make impossible any close comparison between the results of 1950 and those of the preceding year, but the figures given disclose that group operating profits and receipts fell from £3,141,000 to £2,331,000. For this decline, there were three main reasons: an all-round increase in costs of operation, the old trouble of port delays and high charter rates. Working costs cannot yet be significantly brought down, while delays in port are not within the company's control. Stockholders will, however, be glad to learn from the chairman that an arrangement has been made with shippers to allow

the continuing of chartering for essential needs without loss to the company. Depreciation took £514,000 of the past year's profits and taxation cost the group £835,000, leaving a net profit of £1,137,000 against £1,471,000. The dividend of 15 per cent against 12½ per cent had thus a fivefold cover, permitting a transfer to reserves of £906,000, compared with £1,279,000. At the close of the year, the group reserves were £10,749,000, or nearly four times the issued one-class capital of £2,749,000. There is further reserve strength hidden in the omnibus creditors' item and in the fleet account of £7,393,000. This is a conservative valuation representing under £30 per gross ton of ships in commission and building. Current assets exceed current liabilities by £785,000 in short-term loans, £1,838,000 in tax certificates and £3,745,000 in quoted investments.

Cammell Laird's Compensation

THE REPORT of the directors on the 1950 accounts of Cammell Laird & Co., Ltd., confirms that, under the provisions of the Iron and Steel Act, 1949, the company's holdings in the preferred ordinary and deferred ordinary shares of the English Steel Corporation were transferred to the Iron and Steel Corporation on February 15 last, in exchange for British Iron and Steel 3½ per cent guaranteed Stock 1979-81. Cammell Laird holds 419,873 of the £1 preferred and 399,516 of the £1 deferred shares of English Steel. These holdings appear in the balance sheet at par and the compensation received (in Iron and Steel Stock) is in the region of £6,800,000. In addition, the company gets some £450,000 of that Stock as "take-over" value of its indirect interest in the Patent Shape and Axletree Company. How these sums will be utilised has yet to be made known. Part will, of course, be used in expansion of the company's shipbuilding, wagon and engineering interests. Part may be disbursed by way of special distribution to stockholders. In the year under review trading profits and investment and other income fell from £1,257,000 to £1,195,000. The net profit was £465,000 after tax of £566,000 and amply covered the dividend of 12 per cent (9½ per cent). This absorbs £226,000 net, as against £250,000 transferred to general reserve. The company's financial position is strong. Reserves total £3,433,000 compared with the issued one-class capital of £3,550,000. Current assets of £16,078,000 include £2,419,000 in cash and £2,288,000 in quoted securities (mainly British Government stocks). It may be that, at the company's annual general meeting, to be held on May 25, the chairman, Sir Robert Johnson, will be able to tell stockholders of the directors' proposals for dealing with the compensation stock.

Insuring Breakdown of Machinery

AN INTERESTING case recently heard in the American Courts turned on the question of whether a main boiler of a steamship is part of the vessel's "refrigerator machinery or plant." The *Panama City* had sailed from Guatemala for Mobile with a cargo of bananas. When about 100 miles from Mobile, her starboard boiler developed defects and had to be shut down. Relying on her port boiler alone, the vessel could only make less than 2 knots, which did not give her steerage way. The steam had to be cut off from the refrigerating machinery to give a speed of about 4 knots. She arrived at Mobile and the steam was turned back into the refrigerating machinery after being cut off for about 30 hours. The bananas were insured under a policy which covered among other things "all damage and/or deterioration caused by breakdown of refrigerator machinery and/or plant," but no claim was recoverable unless the breakdown was for a period of at least 24 hours. The learned judge held that the starboard boiler was indeed an integral part of the refrigerating machinery and/or plant, and that this conclusion would have been unavoidable even if the word "machinery" had been used alone. He held that the undue ripening of the bananas was the result of the breakdown of the boiler and on this finding the underwriters were indisputably liable for the loss. The available reports of the case do not indicate the defence at any length and it does not transpire whether the underwriters pleaded that ripening of the fruit to the extent of 90 to 95 per cent, which was the deterioration alleged to have occurred, was, in fact, deterioration within the meaning of the policy. Undoubtedly the assured suffered a loss of the nature against which they intended to insure. To that extent the result of the case may be said to be equitable, but as an academic point, having a bearing on the wording of the policy, can it be said that fruit which is only 90 to 95 per cent ripe has deteriorated? Yet another question is whether deterioration is a risk properly insurable under a marine policy. It certainly is not a risk proximately deriving from a peril of the seas, and in many cases underwriters expressly exclude from their marine policies loss or damage proximately caused by inherent vice or nature of the subject matter insured. In the case cited above, however, the Court held that the proximate cause of the deterioration was the breakdown of the boiler, so that point did not arise.

Poor Turnround in London

MR. ROBERT KELSO, in his last speech as chairman of the General Steam Navigation Co., Ltd., gave some interesting comparisons of this company's experiences in London before and since the war. The G.S.N. fleet in 1950 carried about the same quantity of cargo in 1950 as it did in 1938, but seven more ships, totalling about 5,000 tons gross, were employed carrying it. In 1938 the 30 ships performed 1,125 round voyages of an average duration of 9.73 days. Last year the 37 ships performed 1,268 round voyages of an average duration of 10.65 days thus taking 0.92 days longer for each round voyage, in spite of the fact that they were almost entirely ships of considerably increased speed, therefore requiring fewer days at sea. If the turnround in port last year had been the same as in 1938, the fleet would have saved 1,166 days, equivalent in expenses to some £82,000. Generally speaking, Mr. Kelso claimed, turnround in Continental ports has returned to prewar standards, so that this extra cost from slower turnround must be due largely to the slower stevedoring operations in the Port of London. Some parts of the port are better than others, but Mr. Kelso was of the opinion that in all parts an increased number of dockers is required, and he hoped that steps would be taken to obtain an increase in the London register of port workers.

"WORLD SHIPBUILDING"

NEW QUARTERLY JOURNAL

British shipbuilders and marine engine builders may well take pride in the large part which they have played and are continuing to play in the world shipbuilding industry, but it must never be overlooked that this is essentially an international industry, and one in which the race goes to the swiftest, or in this case, to those who build ships which are technically the best at the most economic price. There is therefore every incentive for shipbuilders in all countries, as well as shipowners and their technical staffs, to keep in close touch with the work of their foreign competitors. This has not been easy, however, as it has necessitated the regular reading of a great many technical journals, printed in several languages. Even though many Continental shipbuilders are multi-lingual, the time element also enters into the matter.

In order to provide a regular and reliable channel of information on all aspects of shipbuilding, marine engineering, shiprepairing and the sub-contracting industries, the Shipping World, Ltd., has arranged to produce a quarterly publication entitled WORLD SHIPBUILDING, the first issue of which is now available, as an addition to the several maritime publications of the company. The new quarterly has been compiled by the SHIPPING WORLD staff and specialist writers in all shipbuilding countries, with Commander A. C. Hardy as consultant editor of foreign shipbuilding and engineering developments and trends. Subsequent issues will appear in August and November of this year and thereafter at quarterly intervals.

ON THE "BALTIC"

PROBLEMS OF DISCHARGE IN UNITED KINGDOM PORTS

By BALTRADER

The Timber Control has become active in chartering vessels to bring pitprops to the United Kingdom from Archangel and the Baltic. The rate of 400s. per fathom which has been paid for the voyage from Archangel compares with 145s. paid early last summer. The present figure is high for a voyage of 10 days in each direction, although there is an element of uncertainty as to the time which may be occupied in discharge. One has to accept a charter which provides for discharge in the full range of the United Kingdom, and some ports have a worse reputation than others in the matter of dispatch. One owner, for instance, who has had experience of taking timber to Garston, has felt obliged to decline the business from Archangel altogether because Garston could not be excluded by the charterers. He has known what it is to have his ship waiting for six days outside the port (and in none too safe a position) owing to the congestion at Garston, without any demurrage accruing. It ought not to be the owners' responsibility to bear the loss arising from inability to deal with a ship at the port to which she has been ordered. Whatever the discharging terms may be, whether "as customary" or a fixed rate of discharge, demurrage should be paid for time lost awaiting a berth from the time of arrival at or off the port. This reminds one that the constant theme of the publications of the Baltic & International Maritime Conference is that the rate of freight in a charter is only one of the items which should be closely examined. It is true that a "dirty" charter is like a sieve through which the earnings may rapidly disappear. Apart from the possibility of a long wait to enter the port of Garston at the busy period of the timber season, there is the likelihood that discharge when begun will occupy twice as long as at such ports as Immingham, and especially West Hartlepool.

Position of Handy-Size Tonnage

The demand for shipping of handy size is likely to be difficult to meet in the coming months when the timber trade is in full swing; already the Spanish ore and pyrites charterers are having to work hard to find tonnage. On the other hand, outward coal rates for small ships are about half those paid for larger vessels taking coal from the United Kingdom to West Italy; for instance, Wales to Cadiz or Huelva for about 2,500 tons is only good for 26s. compared with 50s. paid for coal from Wales to West Italy for 7,000-tonners. The small vessels cannot profitably make a longer round voyage than to the extreme western end of the Mediterranean and back, unless they happen to be oil-burners. In view of the high cost of coal bunkers at Gibraltar or bunkering stations in that area and the small range of the handy coal-burners, owners of these ships compete for the limited number of outward coal cargoes suitable to their vessels' range and size; low outward rates, therefore, prevail in that particular market as compared with business obtainable for trading to West Italy.

Homeward, the market for ore and phosphate voyages from the whole of the Western Mediterranean and South Spain is firm and likely to remain so. The new record of 70s. for pyrites from Huelva to Garston has been established and iron ore from Bona to the United Kingdom offers an excellent return. Iron ore supplies in the United Kingdom have been diminishing rapidly and the shortage of shipping has been mentioned by the Minister of Supply as one of the causes of our failure to maintain sufficient stocks of ore. For that reason, it may be expected that freights homewards from the Mediterranean will remain firm during the summer months, when competition is keen on the part of the Timber Control. It may well be that crowded conditions in many ports of the United Kingdom will grow worse during the next six months. If so, the result will be the same as the elimination of a large amount of the already inadequate tonnage would be. A great effort of dispersion is required, such as was exercised by the Ministry of Transport during the war with success.

The Freight Markets

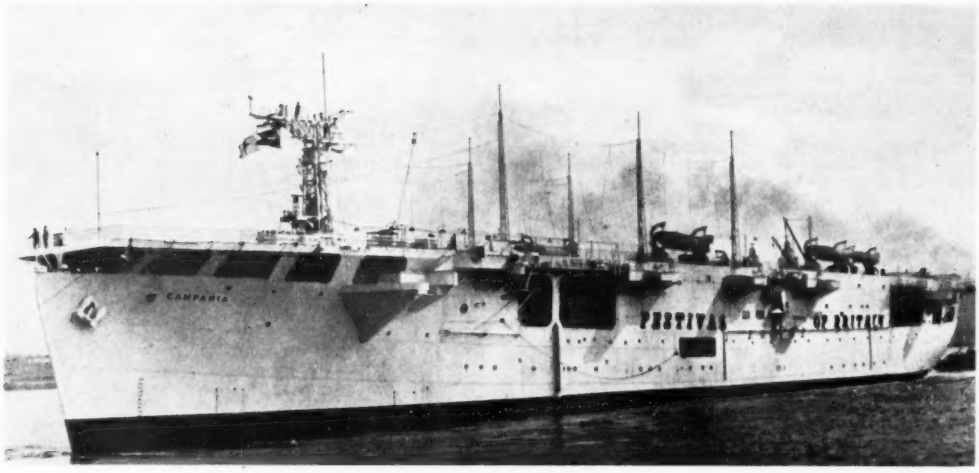
The general demand for tonnage persists, and inquiry in the North American market has improved for grain and sugar. Trans-Atlantic coal chartering has not been active, but there has been continued request for tonnage to perform consecutive voyages from Hampton Roads to the Continent. Single voyages for coal from Hampton Roads have been arranged at $17.10 to Rio de Janeiro, May, at $13.25 to Antwerp or Rotterdam, May, and 130s. to Port Said, May loading. *Sheaf Mount* has taken 30s. per quarter for heavy grain, Gulf to U.K., June/July. About half a dozen vessels have been taken for grain from the St. Lawrence to the United Kingdom at the unchanged rate of 22s. 6d. per quarter, option Antwerp or Rotterdam at 7½d. less, for June or June/July. One of these, the *Acheo*, is fixed with charterers' option of loading in U.S. North of Cape Hatteras at 25s. or Gulf of Mexico at 30s. on basis of U.K. discharge. The *Irish Plane* and *Indian City* are fixed for heavy grain from Gulf of Mexico to Bombay-Cochin Range at 180s., June/July and July respectively. The *Hughli* is similarly chartered, Gulf to East Coast India at 180s., July/August. The *Gardenia*, 1,700 fathoms pitprops, has been chartered from Eastern Canada to U.K. at 400s. for two consecutive voyages, beginning late August. A number of charters have been signed for sugar from Cuba to the United Kingdom at 160s. for May/June and June loading, while June/July has paid 157s. 6d. Tonnage is in short supply in the Mediterranean. The *Archon Michael* is fixed for ore from La Goulette to East Coast U.K. at 61s., May. The *Hope Range* is chartered from North Pacific to U.K. at 150s., heavy grain, June. Up River Plate to India, heavy grain, has been fixed at 155s. July/August. Queensland to U.K., sugar, has paid 185s., September/November, and *Trelissick* has been taken at 165s. from full range Australia to Antwerp-Hamburg, basis bulk wheat, September/November. Time charter fixtures include *Lord Lloyd George*, 10,270 d.w., 10 knots on 26 tons oil, at 47s. 6d. per month for a River Plate round via Sweden, delivery Falmouth, May 23/31, and *Artemesia*, 10,690 d.w., 10 knots on 23 tons oil, at 50s. for a trip to Australia, delivery U.K., mid-June.

Air Charter Business

Demand for transport of ships' crews has been a good feature of the air charter market. Recent fixtures under that heading cover movement of several parties of seamen from Japan, Hong Kong, the Persian Gulf and Eastern Canada to this country, and from the Continent to Montreal. Passenger travel by chartered planes has been fairly well maintained between this country and European countries, particularly Scandinavia.

A Festival of Britain edition of the *Jewish Chronicle Travel Guide* has been published by the Jewish Chronicle, Ltd., 88 Chancery Lane, London, W.C.2 (price 1s.).

The Spring edition of *Sabena Revue*, the handsomely produced organ of Sabena Belgian Airlines, is devoted principally to the attractions which Belgium holds for tourists.



FESTIVAL OF BRITAIN

ACHIEVEMENTS OF THE BRITISH MARITIME INDUSTRIES

AS BEFITS a Festival which is designed to tell the world the story of Britain, her people and their enterprise, the maritime industries, shipping, shipbuilding and marine engineering, feature prominently, not only at the Exhibition at South Bank, London, but also in the Festival Ship *Campania*, the land travelling exhibition, and at the Exhibition of Industrial Power, which is due to open in Glasgow on May 28. At the South Bank Exhibition, the maritime industries are displayed principally in the Sea and Ships' Pavilion, and also in the Transport Pavilion. The Sea and Ships' Pavilion is well sited on the river bank, affording visitors a full view of the traffic on the River Thames, where a typical Thames barge, with its red sails, is moored.

The first feature at the entrance to the Pavilion is a full-scale reconstruction of the bows of the clipper *Maid of Thermopylae*. This is followed by a small display of the fundamentals of shipbuilding, showing how the classic forms have survived in the modern ship: the ancient coracle reappears as an airman's rubber dinghy; the clinker-built form reappears as the plated ship; the carvel-built form as the welded ship. The rest of this section consists mainly of a display of ship models dating from the mid-seventeenth century to the advent of the clippers. Photographs and prints link up the story. Hanging above this display are houseflags of some of the long-established shipping lines: the East India Company, the Aberdeen White Star Line, Willis's Line (owners of the *Cutty Sark*), the N. H. Green Company (Blackwall frigates), City of Cork (*Sirius*), the Great Western Steamship Company, the Cunard Steam-Ship Company, and Trinity House. Other exhibits include a small collection of books on maritime subjects, and a ship's bell from the Royal Mail paddle steamer *Thames*.

The next section of the pavilion is devoted to marine propulsion, and the first exhibit is that of a 3-cylinder Doxford marine oil engine. Another prominent display is the Metropolitan-Vickers prototype marine gas turbine, which was used in *MGB 2009* on trials. The centrepiece of the section is the stern of a tug, with its propeller turning in the water. Other marine engines displayed include a Ruston & Hornsby gas turbine developing 1,000 b.h.p. at 6,000 r.p.m., and a Crossley V-type two-cycle diesel developing up 2,400 b.h.p. with 16 cylinders. Several examples of propellers by the Manganese Brass & Bronze Co., Ltd., are displayed, as well as models of Babcock & Wilcox boilers and working models of a North Eastern Marine steam engine and a Doxford diesel. Outside the pavilion there is an experimental propeller testing tank, 80 ft. long, complete with towing carriage, in which model hulls will be seen under test.

An outstanding exhibit in the shipbuilding section is the Thornycroft patent funnel in aluminium alloy. This is raised so that visitors can walk underneath it and see inside. Painted bright yellow, with black top, and the Festival emblem on its side, this funnel is a prominent feature of the exhibition from the other side of the river. The complete bow frame of a 4,000-tons ship, also supplied by John I. Thornycroft & Co., Ltd., dominates one section. There is also a Brown Bros. electro-hydraulic and hand steering gear, complete with rudder bearing, rudder and rudder stock, for a ship 200 ft. long. The stock comes up through a hole in the gallery to the "bridge," where visitors can operate the control and see the rudder moving below. Nearby is an engineroom telegraph by Mechans, Ltd., and a display illustrating the development of ship ventilation up to the latest Thermotank system.

Large-Scale Models

Other displays on the ground floor include large-scale models of the stern parts of the whaling factory ship *Balaena*, the Orient liner *Orcades* and a modern tanker; a large model of the Cunard liner *Queen Elizabeth*, with an interior model of the first-class lounge; a large model of a dock with the *Stirling Castle* inside; a model of the Denny-Brown ship stabiliser; and a large display showing the motor coaster *Caledonian Coast* in longitudinal section. Other displays deal with anti-fouling, the story of the "Plimsoll line" and of Lloyd's Register. There is also a full-size Trinity House acetylene-charged middle-ground flashing buoy. Other items of ships' equipment and auxiliaries shown in the Sea and Ships' Pavilion include the following:—

Sidelights and windows, J. Stone & Co., Ltd.; anchors and cable, N. Hingley & Sons, Ltd.; capstan, Stothert & Pitt, Ltd.; steam and electric winches, Clarke, Chapman & Co., Ltd.; 24-in. Onazote Lifebuoys, Expanded Rubber Co., Ltd.; type MS24 echo sounder, Kelvin & Hughes (Marine) Ltd.; "Atlantic" binnacle and dead-beat liquid compass, H. Browne & Son, Ltd.; model of set of Welin-MacLachlan deck type gravity davits; steel wire rope ladder with wooden rungs, British Ropes, Ltd.; 24-ft. ship-to-shore gangways in aluminium alloy, Whittingham & Mitchel, Ltd.; deep-sea diving equipment, Siebe, Gorman & Co., Ltd.; polished gun-metal cleats, Ansell Jones & Co., Ltd.

The fourth section deals with fisheries. Its first exhibit is a collection of models of fish of the main commercial

The photograph above shows the aircraft carrier *Campania* as converted by Cammell Laird & Co., Ltd., into a floating exhibition for the Festival

species. Diagrams and illustrations summarise the various techniques of scientific research into fisheries, and a wall display shows the way in which fish is processed and preserved when brought ashore. Models and photographs of various fishing vessels show changes in design, and include an 8-ft. model of an oil-fired trawler, cut down one side, which has been lent by Cook, Welton & Gemmell, Ltd. Six other models of trawlers and drifters have been lent by various firms. There is also a display of new developments within the industry, including new equipment such as aluminium fish-boxes, and the use of radar in locating shoals.

Transport and Communications Pavilion

Sea transport is also the subject of a special section in the adjoining Transport and Communications Pavilion. It deals principally with the transport of passengers and cargo, navigation, safety at sea, and docks and harbours. Eight large showcases contain sections, photographs, prints and dioramas which treat the subject historically, laying emphasis on improved methods of cargo handling and stowage and on the development of passenger amenities. The ships chosen to illustrate this section are the barque *Favell*, the Cunarder *Britannia* (1840), the *Great Britain* (1843), the *Great Eastern* (1858), the *Orient* (1879), the *Aquitania* (1914), the present Union-Castle liner *Bloemfontein Castle* and the cable ship *Monarch*. The development of freight handling methods are similarly illustrated, and other displays show the emergence of improved conditions for crews, the changing pattern of world trade routes, and the growth of specialised shipping services.

The navigational display is arranged to convey the atmosphere of a ship's bridge, with typical chartroom equipment on view. The bridge front contains horizontal sliding watertight windows by J. Stone & Co., Ltd., and Kent "Clear-View" screens. A wide range of equipment is installed, including Chadburns' telegraphs and indicators, with instruments by Kelvin & Hughes, Ltd., Negretti & Zambra, Ltd., Henry Browne & Son, Ltd., British Pitometer Co., Ltd., and Thos. Mercer, Ltd. A range of International Marine radio equipment is installed, as well as Sperry gyroscope units. Transmitters and receivers by Redifon, Ltd., are shown, and there is an interesting display of Metropolitan-Vickers radar, showing signals received during an actual voyage between Antwerp and London. There is also a display of shore-based radar equipment by Cossor Radar, Ltd. During demonstrations a Cossor set will have its twin 15-in displays working, on which an area of the Thames will be "painted" to show the relation of moving light-echoes to the river traffic outside. The Decca Navigator is also exhibited, and a two-way intercommunication system, coupled with loud hailer, is supplied by the Ardente Acoustic Co., Ltd.

Coloured diagrams and an illuminated model show the working of the "rule of the road," while several displays by Chance-Londex, Ltd., illustrate the development of lighthouse and buoy equipment. Lifesaving exhibits include the Schermuly pistol rocket line-throwing apparatus. Marconi equipment includes a "Salvita" type 310A portable lifeboat radio transmitter/receiver. A 30-ft. riveted aluminium lifeboat by Mechans, Ltd., is displayed outside the pavilion.

The centrepiece of the docks and harbours display is a scale model of Southampton Docks 27 ft. long. Modern dock equipment is illustrated photographically and by a large model of a heavy-lift crane. The pavilion is served by an industrial information centre, which will answer the inquiries of business visitors relating to all industries displayed in the Transport or Sea and Ships Pavilions.

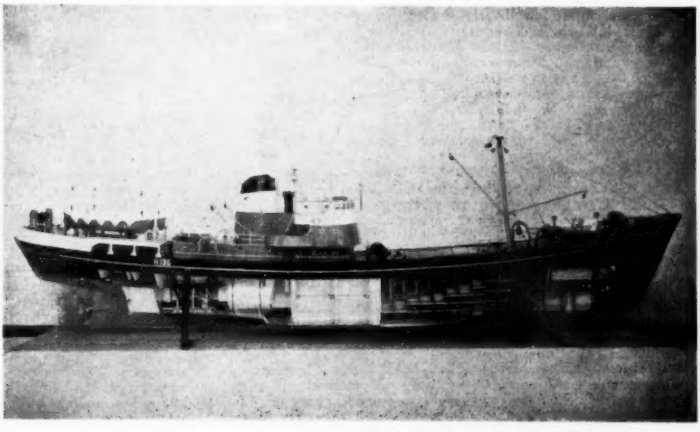
FESTIVAL SHIP "CAMPANIA"

Britain's Seaborne Exhibition

THE former aircraft carrier *Campania*, specially converted as an exhibition ship for the Festival of Britain, will visit ten United Kingdom ports between now and October. She will remain at Southampton until May 14, when she sails for Dundee. The work of conversion was carried out by Cammell Laird & Co., Ltd., Birkenhead, while the installation of the displays was carried out by Cowtan & Sons, Ltd., ship furnishers, of Belgrave Square, London, S.W.1. The vessel is painted in white overall, except for yellow masts and funnel openings. The Festival symbol has been built in aluminium on her sides. Five new light tripod masts, in addition to the ship's tower mast, carry dressing lines and flags. All awnings are yellow, and the vessel is floodlit at night. Furness, Withy & Co., Ltd., are managing the vessel, which is under the command of Capt. F. S. Thornton, with a Merchant Navy crew of about 120.

The *Campania* is moored with her starboard side to the quay, from which the public gain access over twin aluminium alloy gangways, as described in last week's SHIPPING WORLD. Except for the flight deck, the whole of the display is contained in the hangar, which is 300 ft. long, 70 ft. wide and 25 ft. high. The display follows in principle, although on a smaller scale, the arrangement of the South Bank Exhibition, London. Wide use of "Semastic" decorative tiles has been made for flooring, of which 2,000 square yards have been laid in many colours, in addition to a similar area of "Semtex" fleximer decking. "Dunlopillo" cushioning is used in the hangar deck restaurant, and fibred rubber matting to cover the major part of the flight deck has been supplied by the Nuway Manufacturing Co., Ltd. The total area of matting is 13,000 sq. ft., equivalent to one mile of matting 2 ft. 6 in. wide. The navigational aids used in the ship include a comprehensive Marconi radio installation, Decca Navigator, Kelvin-Hughes radar, Sperry gyroscope, and loud hailer by Alfred Graham & Co., Ltd.

Several boats are exhibited on the flight deck, including a twin-screw Liverpool type R.N.L.I. lifeboat; a Falmouth 14 general purpose motor launch with 4 h.p. petrol engine and reverse gear, built by Falmouth Boat Construction, Ltd.; an Invader class aluminium alloy boat by Marine Craft Constructors, Ltd., Dumbarton; a Flying Fifteen aluminium alloy yacht by Whittingham & Mitchel, Ltd., as previously described in THE SHIPPING WORLD; and several Fleming type lifeboats of welded steel, wooden and riveted aluminium alloy construction, built by Campbell & Isherwood, Ltd., Gregson & Co., Ltd., Mechans, Ltd., Harland & Wolff, Ltd., and Hugh McLean & Son, Ltd. Also displayed on the flight deck are sets of deck type gravity davits by Welin-



A cut-open model, 8 ft. 9 in. long, of the trawler "Princess Elizabeth" is a feature of the South Bank Exhibition, lent by the builders, Cook, Welton & Gemmell, Ltd.

MacLachlan Davits, Ltd., Linkleter's buoyant deck seats and a 15-cwt. crane with 29-ft. cross lattice jib by R. H. Neal & Co., Ltd.

It is interesting to note that the use of the *Campania* as an exhibition will subject her five diesel generators, which will provide light and power for the exhibits, to a heavy test. They will depend a great deal on the quality of their lubricating oil, which is supplied by Shell-Mex & B.P., Ltd. Samples of the oil in use will be drawn at regular intervals and sent for analysis to Shell laboratories.

Land Travelling Exhibition

Gas turbines are among the principal features of the Land Travelling Exhibition which opened at Manchester on May 5. Beside the earliest experimental axial compressor, which was built in 1936, will be shown a modern gas turbine engine using an axial compressor made by the Metropolitan-Vickers Electrical Co., Ltd., similar to that used to power the *MGB 2009*, which in August, 1947, was the first gas turbine driven vessel to go to sea. The National Gas Turbine Establishment are also supplying two large working models to demonstrate modern methods of research. One illustrates the method of measuring the performance of experimental axial-flow compressors by running them in water at low speeds. The other demonstrates the study of the vibrational properties of turbine blades. There is also a model of the new 1,200 h.p. gas turbine alternator recently built by the British Thomson-Houston Co., Ltd., Rugby, for installation in the Anglo-Saxon tanker *Auris*, and a model of a 10,000-kW. gas turbine plant now being built by C. A. Parsons & Co., Ltd., Newcastle-on-Tyne, for supplying both power and hot water for buildings surrounding the National Gas Turbine Establishment.

Festival River Services

The opening of the Festival River Services by the Lord Mayor of London in a river procession marked another big development in the use of the River Thames as a highway for passenger transport. Pier-to-pier services were started in 1948 and they carried a million passengers in 1949. For the Festival year 25 owners have pooled their fleets, numbering about 85 launches, including five new vessels and seven newly converted. Six new piers have been built, including a floating landing stage at South Bank, and shuttle services will run between South Bank and the Festival Gardens at Battersea Park.

Other Festival Arrangements

Lloyd's Festival of Britain Exhibition was opened on Monday, May 7, and an account of this will appear next week.

The Simplex Electric Co., Ltd., has opened a Festival Exhibition Centre at the Creda Works, Blythe Bridge, near Stoke-on-Trent. The displays will be arranged in sections dealing with heating and water heating, domestic and heavy duty cooking equipment, switchgear, lighting equipment and accessories. No less than 40 Creda, Simplex and Lundberg products were selected for the Festival of Britain, including large quantities of lighting equipment and switchgear.

Vickers, Ltd., are holding a special exhibition during the Festival of Britain at Vickers House, London, S.W.1, which was opened on Monday by the chairman, Lieutenant-General Sir Ronald Weeks. Covering a floor area of 6,500 sq. ft., it is the first comprehensive Vickers' exhibition held since the war, and includes representative exhibits from the shipbuilding, engineering and aviation works of Vickers-Armstrongs, Ltd., and associated companies. The exhibition will be open to the public from 10 a.m. until 5 p.m. on Mondays to Fridays until September, except for bank holidays. Tickets of admission are obtainable from Vickers, Ltd.

50 Per Cent Surcharge on Cargo to New Zealand

As a result of the heavy losses being incurred through the continued waterfront stoppage in New Zealand ports, the New Zealand liner conference has announced that a surcharge of 50 per cent will be applied on all freights, both outwards and homewards, as from May 7. As an indication of the magnitude of the losses the lines are suffering it is stated that up to April 26, when the stoppage had lasted nine weeks, over 50 vessels, totalling 500,000 tons gross, owned and operated by the lines, had been affected and a total of over 2,100 ship-days had been lost. These losses will accumulate so long as the stoppage lasts and will continue even after normal working is resumed, owing to the inevitable delays in clearing the ports of cargoes.

German Shipping Developments

New Liner Programme

SINCE the annulment of the last shipping restrictions for German shipowners in the first week of April, many new orders have been placed by the larger shipping companies with German yards. Most of the ships to be built are fast cargo liners of about 8,000 tons d.w. with a speed of 16 knots, but some orders of smaller ships for refrigerated cargo have also been given. These orders have been already reported in THE SHIPPING WORLD.

The Hamburg-Amerika Linie now possesses four ships totalling 14,181 tons gross, while two motor vessels of 5,000 tons gross each will soon be launched and five vessels of 2,700 tons gross each are on order or laid down. The regular services to the West Indies, Cuba and Mexico and to the U.S.A. are maintained for the most part by chartered ships. This company has now ordered, in addition, four turbine steam ships of 10,000 tons d.w. each and three motor vessels of 8,000 tons d.w., all ships with a speed of 16 knots but without accommodation for passengers. The largest company at Bremen is the Norddeutscher Lloyd: with a subsidiary company, the Roland Linie, it has already ordered six cargo ships of 2,700 tons gross each and two refrigerated cargo ships of 2,450 tons gross each. Of the cargo ships two are already in service, one ship is fitting out and the others have been laid down. The company cooperates with the Hamburg-Amerika Linie services to the U.S.A. and Cuba/Mexico and itself maintains a service to the north-east coast of Brazil. New orders have now been placed for four turbine-driven freighters and three motor vessels of the same type as the Hamburg-Amerika vessels.

Of great importance in the traffic with the east coast of South America is the Hamburg-Südamerikanische Dampfschiffahrts-Gesellschaft. Four motor vessels of 7,000 tons gross and 10,000 tons d.w., each with comfortable accommodation for 12 passengers, have been ordered, and the first, the *Santa Ursula*, is on her maiden voyage to Brazilian ports, Montevideo and Buenos Aires. The *Santa Elena* will enter his service at the end of May and the two other vessels are under construction. All these ships have a speed of only 12 knots. Three faster vessels of 7,500 tons d.w. have now been ordered from Howaldtswerke, Hamburg, but no further details are known up to date.

New Services to India and Africa

At the end of the last year the Deutsche Dampfschiffahrts-Gesellschaft "Hansa," of Bremen, reopened a service to Bombay, Karachi and Persian Gulf ports. The company owns seven ships of 27,239 tons gross, but three of them are small steamers for the service to the north coast of Spain. Four motor vessels of 7,200 tons gross and 10,150 tons d.w. each are now under construction or on order. The ships will be equipped for handling heavy cargo, and will have accommodation for eight passengers, with the engines aft. Further contracts are being negotiated. Three motor vessels are to be built for the Deutsche-Afrikanische Schiffahrts-Gesellschaft, the former Woermann and German East African Line. These ships will have a gross tonnage of 4,000 and a deadweight capacity of 6,300 tons each. Two other vessels are already operated, the m.v. *Tanga* (5,729 tons gross) and the cattle carrier *Kilwa* (1,110 tons gross) now chartered by the Bugsier-Reederei for the service to Ireland. Two fast cargo vessels of 8,000 tons d.w. each are to be ordered from a Hamburg yard for the service to South Africa, while the three vessels already under construction are intended for the service to West Africa.

Though the prospect for German shipowners is much more favourable than some weeks ago, the liner companies are very cautious with their arrangements. The German yards have meanwhile been occupied largely with ships ordered from abroad, so that the first fast cargo ships for German owners cannot be delivered until the second half of next year. A great obstacle to the quick delivery of the orders is the shortage of steel, especially of rolled plates; and through lack of financial resources German shipowners are compelled to exercise great caution in their investments in new tonnage.

THE U.S. cargo vessel *Nevadan* has become the 150,000th major ship to pass through the Panama Canal since it was opened 37 years ago.

A COMMITTEE has been established to examine and make recommendations on the desirability of setting up a port authority to administer the Port of Suva, Fiji. The committee is under the chairmanship of Mr. D. A. Butler, manager of the Union Steamship Co. of New Zealand, Ltd.

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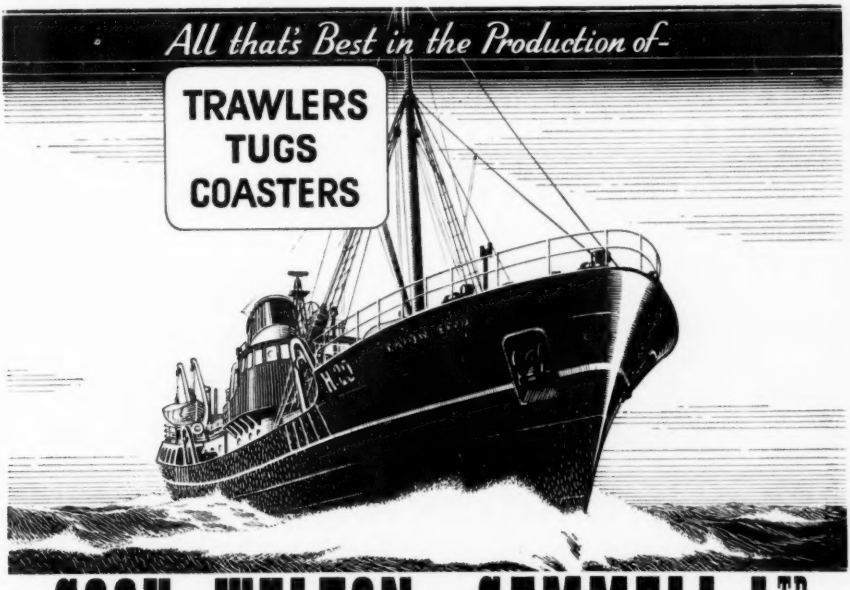

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COAL AND OIL

THIRD WORLD PETROLEUM CONGRESS

THE third World Petroleum Congress will open on May 28 at Scheveningen, the seaside resort of The Hague. It will be under the patronage of Prince Bernhard of the Netherlands, and some 1,500 delegates from over 20 countries will attend. The first of these congresses was held in London in 1933, and the second one in Paris in 1937. The long interval between the second and third congresses was caused by the war, and also, no doubt, by the preoccupation of leaders of the oil industry in the years following the war with the tremendous problems of reconstruction and expansion which faced them owing to wartime destruction and the postwar growth of demand for oil. The reasons for holding these international conventions are both internal and external: they are intended both to enable the industry to discuss its technical problems on an international level, and also to direct the attention of oil consumers to the way in which these problems are being solved. The subjects on which papers are to be given cover the whole range of operations from the initial survey to the final marketing of the refined product. As announced in THE SHIPPING WORLD last week, a number of papers on the marine aspects of oil production and marketing are to be given. Mr. John Lamb, manager of marine research and development of the Shell Group, is co-operating with Mr. R. L. Brown in the production of a paper on the design of tankers which will undoubtedly be read with great interest by the maritime industries. Another paper of maritime interest is that to be read by MM. Coutaud and Dechênes, in which the new harbour facilities for tankers at Marseilles, Lavéra and Le Havre will be described. These have been designed to accommodate tankers of up to 45,000 tons deadweight; at the time that the initial specifications were being prepared this must have appeared to be a limit unlikely to be reached by tankers for a good many years, but the fact that a tanker of 40,000 tons deadweight has already been ordered from a German shipyard shows that in a few years' time this handling capacity may be fully employed.

April Tanker Rates Slightly Lower

ALTHOUGH chartering rates in the tanker market remain at extremely high levels, there was a slightly weaker tendency during April, with some decrease in rates. Davies & Newman, Ltd., report that there was a moderate demand for tonnage for soft currency payment, but that inquiry for American account was rather limited. In consequence, the number of fixtures concluded has been somewhat less than in previous months. British major oil companies were very inactive during the month for tonnage on a single voyage basis, although a few fixtures were concluded early on for dirty vessels from the Caribbean Sea to U.K./Continent at MOT plus 220 per cent. French charterers, on the other hand, were active, and have taken a number of dirty vessels from the Persian Gulf and Caribbean Sea to France. Rates have varied between the equivalents of MOT plus 275 per cent and MOT plus 202 per cent, according to position and time of fixing. There has been little single voyage business quoting for dollar payment, although a dirty vessel obtained USMC plus 120 per cent from Caribbean Sea to Montevideo, while California to Japan was closed at USMC plus 77½ per cent. Generally speaking, tonnage is more plentiful in the Caribbean Sea area than in the Persian Gulf, and some vessels may find it difficult to secure cargoes for early loading in the Western Hemisphere. Little business was reported for clean tonnage during the month. Two handy sized vessels were fixed from the Black Sea to Finland at 200s., while a large American vessel obtained USMC plus 200 per cent from U.S./Gulf or Caribbean Sea to Finland.

Consecutive Voyages and Time Charter

A NUMBER of fixtures have been concluded on consecutive voyage basis; dirty tonnage obtained MOT plus 150 per cent for six months' consecutive voyages and MOT plus 145 per cent for 12 months, both commencing in September. Latterly a dirty vessel accepted MOT plus 147½ per cent for consecutive voyages from May until September. Four newbuilding tankers were fixed for three years' dirty trading, MOT plus 50 per cent being paid for delivery in February 1952, MOT plus 40 per cent for delivery in October 1952, and MOT plus 35 per cent for delivery in February 1953. An interesting fixture was that of a large clean vessel for 12 months' consecutive voyages commencing in June at MOT plus 170 per cent. Two American T2 tankers have been fixed for three-years' voyages commencing next autumn at USMC plus 25 per cent. A number of fixtures are reported on time charter basis for periods of five and seven years. Tonnage of 16/18,000 tons deadweight has obtained 23s. 6d. for seven years for 1952 delivery, and 22s. 6d. for 1953 delivery. A large Scandinavian vessel of about 24,000 tons deadweight is reported fixed for 12 months' consecutive voyages, commencing September 1951, at MOT plus 120 per cent, followed by 5-years' time charter at 23s., while another newbuilding of 29,000 tons deadweight was chartered at 20s. for seven years commencing end 1954/early 1955. Some charterers are still looking for further tonnage on time-charter basis.

RECENT PUBLICATIONS

The Scanner is the new title given to the house journal of Decca Radar, Ltd. The latest issue describes a further selection of ships which have been equipped with Decca radar.

A new catalogue has been issued by the Simplex Electric Co., Ltd., of Oldbury, Birmingham, dealing with prismatic watertight bulkhead fittings.

The causes and prevention of scale in turbine blading, with some consideration of its influence on performance, are the subjects of an article in *The Allen Engineering Review*, house magazine of W. H. Allen, Sons & Co., Ltd., Bedford.

The conversion of the tug *Chicago* to diesel propulsion forms the subject matter of a recent issue of *Diesel Times*, published by the Cleveland Engine Division of the General Motors Corporation, of Cleveland, U.S.A.

The main article in the latest issue of the *Sulzer Technical Review* reviews the reconstruction of the French mercantile marine, and describes the large number of new French vessels that have been fitted with Sulzer diesels.

A handbook prepared by Edward W. Turner & Son, Tower Buildings, Water Street, Liverpool 3, contains a great deal of useful information relating to the Mersey ports, including information pro forma accounts for ships and cargoes handled in the ports.

A booklet produced recently by Thos. W. Ward, Ltd., entitled *Scrap Means Steel*, describes the use of scrap and its importance to the national economy at the present time. It is aimed primarily at those industries whose operations do not bring them into touch with the economics of steel production, and who could help materially in the drive for increased quantities of scrap if they became aware of its necessity.

A new catalogue of the wide range of "Kathanode" marine batteries has been issued by the D.P. Battery Co., Ltd., of Bakewell, Derbyshire. The Kathanode principle of assembly provides between the plates a highly elastic, porous and indestructible separator of finely spun glass felted into sheets, which protects the plates and active material from the worst effects of shock and vibration. The elasticity of the plate groups also enables them to be compressed to fit tightly in containers.

DANISH SHIPPING AND SHIPBUILDING

LOWER EARNINGS : SALES TO POLAND

By THE SHIPPING WORLD'S Own Correspondent

IN THE April issue of the J. Lauritzen paper *Frivagten* it is stated that owing to the considerable rise in prices the accounts for 1950 were not so satisfactory as those for the previous year. Altogether the fleet has brought in Kr. 73 million, of which 95 per cent came from trading between foreign ports. In hard currency alone Kr.42.5 million was earned. At the end of 1950 the fleet totalled 96,500 tons d.w., with an average size of 3,575 tons. Two new ships, the steamship *Tessa Dan* and the motorship *Bella Dan*, were taken over, totalling 10,400 tons d.w. The *Vilma Dan*, 3,500 tons d.w., was purchased from abroad. At the end of 1950 there were 14 vessels on order, including three motor tankers of 16,300 tons d.w. On July 7, the United Steamship Company of Copenhagen will start a direct route between Aalborg and Leith with sailings every Saturday from Aalborg and every Wednesday from Leith. The motorship *Trondhjem*, which is able to take 24 passengers, will be used for this service.

As already reported, the motor vessels *Benny Skou* and *Dansborg* have been sold to Poland in accordance with the recent trade agreement. Now the *Marchen Mærsk* (8,694 tons gross, 644,000 cu. ft. bale, about 15 knots, built in 1937 in Vegesack), belonging to A. P. Moller, of Copenhagen, has also been sold to Poland. The motorship *Cypria* (7,650 tons d.w., 427,000 cu. ft. bale, about 11 knots and built at Copenhagen in 1931) has been bought from Norway and resold to Poland. The total purchase price paid for the four vessels is Danish Kroner 40 million. The East Asiatic Company of Copenhagen has sold the Liberty ship *St. Thomas* to Panamanian buyers for U.S. $970,000, with delivery in August.

Among recent new contracts, the East Asiatic Company of Copenhagen has ordered another 10,000 tons d.w. motor vessel of the "P" class from Deutsche Werft, Hamburg. As previously reported Rederiet Svendborgsund and Mr. A. E. Sorensen, Svendborg, have each contracted for a 900 tons d.w. motor vessel at the Nobiskrug yard, Rendsborg. Mr. A. E. Sorensen has now ordered another similar vessel and so has the firm of Otto Danielsen, Copenhagen.

On April 5 the Burmeister & Wain yard at Copenhagen launched the cargo liner *Nicoline Mærsk* for A. P. Moller. She is an open shelterdecker of 9,210 tons d.w. building to the highest class of Lloyd's Register. Her dimensions are 445 ft. by 63 ft. 6 in. by 31 ft. 6 in. and her draught is 27 ft. 8 in. She has a capacity of 630,000 cu. ft. bale, including 9,000 cu. ft. of refrigerated space. Her machinery consists of the largest single-acting two-stroke B. & W. direct reversible crosshead diesel so far built, producing 11,500 i.h.p. at 115 r.p.m. and giving the vessel a speed of 17 knots on loaded trial. On the same day the Elsinore shipyard launched the train ferry *Saint Germain* for the French State Railways. Intended for the Dunkirk-Dover service, she will have a speed of 18 knots. Her 9-cyl. diesel engines of 9,600 i.h.p. are also being built by the Elsinore shipyard. A third launch on the same day was that of the motorship *Patagonia*, building at Nakskov Skibsværft for the East Asiatic Company, Ltd., of Copenhagen. She is a 10,000 tons d.w. motor liner and a sister ship of the *Magdala* delivered by the same yard on March 21.

On the following day (April 6) Aalborg Værft delivered the *Silja Dan* to J. Lauritzen of Copenhagen. She is a cargo steamer of 4,200 tons d.w. and built for trading in icebound waters in the Baltic. The hull, screw and rudder are reinforced against ice, the rudder being protected by a specially constructed ice knife. She is built to the highest class of Lloyd's Register and has a 3-cylinder double-compound Atlas steam engine which develops 2,100 i.h.p. and gives a speed of 13 knots. On April 17 the motor ferry *Dronning Ingrid*, building at Helsingor Skibsværft for the Danish State Railways for service across the Great Belt, ran trials. She is built to the highest class of Bureau Veritas for the carriage of 1,500 passengers besides a full cargo of railway wagons and motor cars. She has three railway lines with a maximum effective length of 259.6 m., which equals 30 ordinary goods wagons or about 85 motor cars. The machinery consists of two 6-cyl. two-stroke B. & W. diesels directly coupled to separate shafts, giving a total of 5,450 h.p. at 165 r.p.m. for a speed of 16½ knots fully laden. Burmeister & Wain have delivered the 8,500 tons d.w. motorship *Indus* to Messageries Maritimes, Paris. Her dimensions are 447.2 ft. b.p. by 61.4 ft. by 30.2 ft., and her draught is 25 ft. 6 in. She has a 6-cyl. B. & W. two-stroke single-acting crosshead diesel developing 8,850 i.h.p. at 148 r.p.m. Her laden speed on trial was 16 knots.

International Shipping Federation

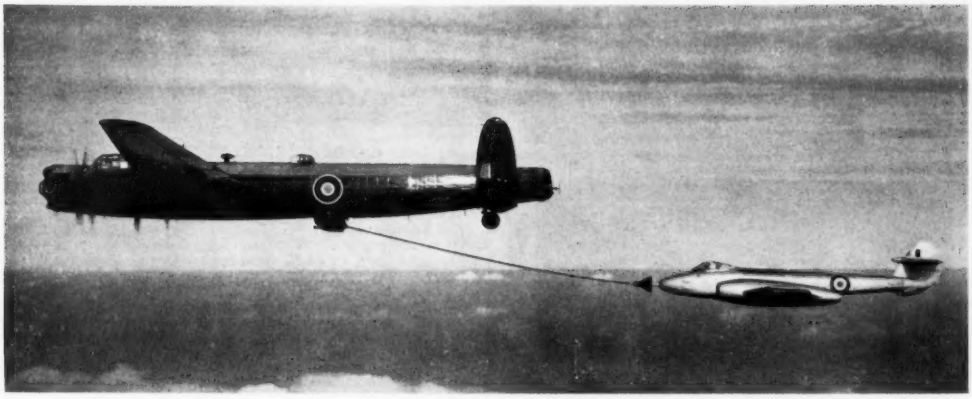
The International Shipping Federation will hold its annual meeting in Paris on May 17 and 18 on the invitation of the Comité Central des Armateurs de France. The British representatives will be Mr. Basil Sanderson, Mr. D. F. Anderson, Col. W. L. Denholm, Col. Hugh Campbell, Mr. J. R. Cowper and Mr. R. Gillespie.

The principal items on the agenda are a proposal by the International Transportworkers' Federation that the convention on wages, hours and manning, which was adopted by the Seattle Conference in 1946, should be revised; a suggestion that a special conference should be held to discuss the conditions of employment of seafarers in the countries of West and North-West Europe; and that a regional conference should be held in Asia to consider the conditions of employment of Asian seafarers. These three questions are also on the agenda of a meeting of the Joint Maritime Commission of the International Labour Organisation which will be held in Geneva in the following week. The International Shipping Federation has now been granted consultative status by the Economic and Social Council of the United Nations.

Sea Transport of Bulk Bitumen

The first trans-Atlantic delivery of bulk bitumen to one of the new Shell receiving depots in Europe took place on March 26, when 4,000 tons of bitumen were discharged by the tanker *Liparus* (9,000 tons d.w.) at Provestenen, near Copenhagen—the first to be completed of three bulk receiving depots under construction for Shell. This was the initial operation of a new programme to supplement European supplies by building bulk receiving depots in Europe. Further depots are nearing completion at Setubal, south of Lisbon, where the first shipment is due at the beginning of June, and at Dublin, which should be ready in the autumn. At these 6,000-tons storage depots, each of which will cost about £120,000, the bitumen, which is to be bulk-shipped in two basic grades, will be manufactured into the wider ranges of products that are required by users of this type of material.

To overcome the problem of trans-Atlantic shipment of "hot" bulk bitumen, Shell converted three tankers *Lembulus*, *Labiosa* and *Liparus*, each at a cost of £30,000. In these vessels the centre tanks, with a capacity of about 4,000 tons, have been specially equipped with coils and fitted with jacketed lines and pumps. The balance of the cargo in the wing tanks will consist of black oils. As regards inland distribution in Europe, bitumen will continue to be supplied both in drums and in bulk, by road and rail bulk vehicles. Distribution in drums is necessary because some grades cannot be economically transported in bulk and drums enable purchases of small quantities to be made; but it is to the consumers' advantage to buy in bulk whenever possible, since the product is much easier to handle if decanting and reheating are unnecessary, and it has been estimated that about 60 per cent of Western Europe's total bitumen demand can be supplied in bulk.



FLIGHT REFUELLING

LONG RANGE WITH LARGE PAYLOAD

By E. N. B. BENTLEY

THE conventional airliner of today inevitably has to sacrifice payload for range; on a long-range service, such as the North Atlantic, the weight of fuel carried may be twice the weight of passengers, or even more. With modern aircraft of high wing loading, the maximum permissible all-up weight is usually determined by the length of runway required for take-off rather than the weight which the wings can support in the air. It is this characteristic which justifies, and logically demands, flight refuelling for long-range work. Without it the long-range aeroplane becomes a flying petrol tank, of which only 5 per cent or so of the all-up weight consists of revenue earning load.

The history of flight refuelling is longer and more trouble-free than most people realise. Following on elementary experiments in America in the 1920s, during which the only recorded fatality in flight refuelling operations occurred, the first practicable system in England was evolved by Squadron Leader (as he then was) R. L. R. Atcherley, of the R.A.F. The method employed was for the aircraft being refuelled to trail a long line with a grapnel at the end of it, while the tanker flying above trailed a weighted line. The tanker then flew across until the grapnel took hold of its line, and the aircraft being refuelled then hauled in the line, to which was attached the hose. This method, or variations of it, was used very successfully on many trials, until the advent of the "probe and drogue" method in 1949.

In 1934, Sir Alan Cobham, who made many notable Empire flights during 1924 to 1931, founded Flight Refuelling, Ltd., and, following some years of development and experimental flying, the first regular scheduled transatlantic service was started in 1939 in conjunction with Imperial Airways, Ltd. Short "C" class flying boats, taking off at 46,000 lb., were refuelled with 1,000 gallons of petrol, bringing the weight up to 53,000 lb. The refuelling tankers were based on Shannon, in Ireland, and Gander, in Newfoundland. In 1942 Flight Refuelling, Ltd., sent a team of technical advisers to the United States to install flight refuelling equipment in Liberator and Flying Fortress aircraft.

In 1946 more trials, 26 by day and 17 by night, were made over the English Channel in cooperation with British South American Airways Corporation. Tankers capable of delivering 2,000 gallons were used in 1947 for a series of eleven scheduled weekly return flights, again by B.S.A.A.C., between England and Bermuda. A five months' winter service non-stop between London and Montreal was operated by B.O.A.C. in 1948, proving the effectiveness and reliability of flight refuelling, even in winter conditions and at night. In February 1949 the first non-stop round-the-world flight, other than by airship, was made by a Boeing Superfortress, which refuelled from Flying Fortress tankers four times in its 23,000-miles journey.

With the advent of jet aircraft the need for refuelling was even greater and at the same time it had to be done at higher speeds and with the minimum of apparatus and operation on the aircraft being refuelled. At the end of 1948 work was started on an entirely new method, which was tested in flight in April of the following year. This was the "probe and drogue" method in which the tanker trails a hose with an open cone at its end which acts as a drogue to steady the end of the hose and as a guide for the probe. The pilot of the aircraft to be refuelled flies so that the probe enters the drogue. He then switches on the fuel valve and after refuelling, at a rate of up to 600 gallons a minute, withdraws the probe, automatically shutting off the fuel valve. With this method the tanker flies above and ahead of the aircraft being refuelled, which takes in fuel at the front. In the old method the tanker flies above and behind the other aircraft, which takes in its fuel at the stern.

Use with Jet Aircraft

A Gloster Meteor jet fighter in 1949 made a record endurance flight of 12 hours, being refuelled ten times in the course of the flight by the "probe and drogue" method. In 1950 the first Atlantic crossing by a jet aeroplane was made by a United States Republic Thunderjet, refuelled by the same method from tankers stationed in Newfoundland, Greenland and Scotland. Flight refuelling, which is now possible at speeds up to 300 m.p.h., can be carried out at altitudes up to 30,000 ft. and requires no complicated procedure or extra crew for the aircraft being refuelled.

Perhaps the most notable example of the advantages of flight refuelling is that, whereas a 50-passenger aircraft for a non-stop London to New York service would weigh about 300,000 lb., with flight refuelling it could be designed for 100,000 lb. all-up weight. It is estimated that cost of refuelling from a tanker air-

A Gloster Meteor taking fuel from a Lancaster tanker during the 12-hour endurance record

craft, including overheads but excluding the cost of the fuel itself, would amount to something like £250, and a good deal of this would be offset by not having to pay a landing fee. Mr. Latimer-Needham, chief engineer of Flight Refuelling, Ltd., has investigated very thoroughly the operational and economic aspects of flight refuelling, especially as applied to the trans-atlantic service. He estimates that the de Havilland Comet, using flight refuelling, with a passenger load factor of 65 per cent and an annual utilisation of 3,100 flying hours, would show a profit of 2s. 7d. per revenue ton mile, which is considerably higher than for the most efficient aircraft at present operating that route. The military uses of flight refuelling, in the matter of range and bomb load and in duration for fighters, are as outstanding as its commercial prospects.

The past history of flight refuelling shows it to be nearly 100 per cent reliable and safe, and with the aid of modern radar search equipment and flying above the weather it should be even better. By planning refuelling points, as is always done, so that in the event of a missed contact or any other trouble, the aeroplane still has enough fuel to return to an aerodrome, the system is almost foolproof. It is significant that insurance underwriters have stated that they would ask lower premiums for a non-stop refuelled service across the Atlantic than for a normal service.

Aircraft Brokers' Association

Proposals for New Organisation

A MEETING was held in Paris, on April 19 and 20, between 25 of the most active aircraft brokers in the United Kingdom and Continent of Europe. Thirty-six invitations had been sent out, but the others were prevented from coming only by prior engagements. Mr. J. Beeson, of E. A. Gibson & Co., Ltd., was in the chair. The discussions in the first place were concerned with the advisability of forming an International Association of Aircraft Brokers, and it was unanimously agreed that it would be advisable and timely to form such an Association.

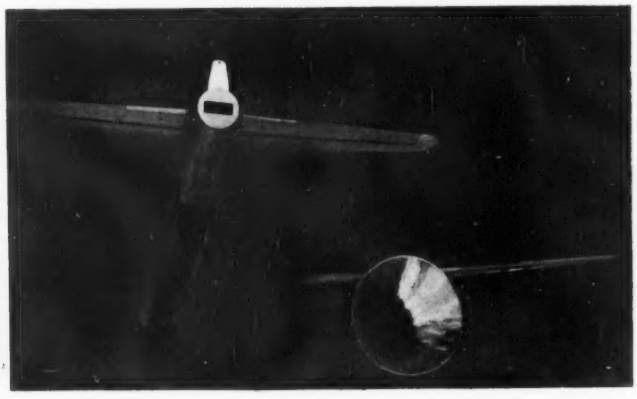
A Committee was set up from the brokers present, to draft the policy of the Association, and this was presented, on broad lines, as being concerned with the development of good market conditions, and the maintaining of high standards of broking and good faith between all the brokers concerned; also to provide facilities to increase business; to provide for a better exchange of information regarding aircraft and loads available, local conditions, and helpful or harmful legislation in the various countries there represented. Further, the Association would organise the study of documents of carriage, with a view to improving on the existing ones or drafting new ones, and would also draft a suitable contract to be used in connection with the sale and purchase of aircraft.

Qualifications for Admittance

The main idea behind the Association is that all the broker members shall be of extremely high standard, and shall all work in the same way, using the same documents and procedure. The closer working together should help them to get the best possible use out of the existing air freight markets, which will be to the advantage of their principals, whether they are aircraft owners or charterers. Only aircraft chartering brokers would be eligible to join the Association.

The definition of an aircraft chartering broker adopted for the purposes of the meeting was: "One who is actively engaged in the business of aircraft chartering or the sale and purchase of aircraft, and who has the necessary organisation to develop markets and to work energetically for the good of the business generally." Brokers qualifying for admittance to the Association would nevertheless be carefully investigated by the board before being accepted. It is intended that only brokers of high commercial integrity and good financial standing should be admitted. The Association is not primarily concerned with the business of forwarding or travel agents, but no broker would be excluded from joining because he were engaged in either form of business, if he were also active on the charter market.

A committee of ten was set up, composed of one broker from each of the eight countries represented, and invitations to the secretary of the Airbrokers' Association in London and the secretary of the Bourse Internationale de Fret Aerien de Paris. The work of this committee is to study the administration of the Association, to canvass for members and to give general publicity to the idea. When the amount of support can be accurately gauged, a further committee meeting will be held to found the Association properly and permanently.



A view of the drogue as seen by the pilot of the aircraft being refuelled. At the head of the pipe can be seen the signal light, which tells the pilot when he can make contact. For night operations the drogue is lighted internally

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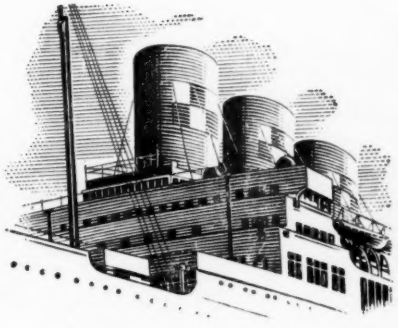

Canadian Pacific

Trafalgar Square, W.C.2 (WHitehall 5100), or 103, Leadenhall Street, E.C.3 (AVEnue 4707) and Liverpool, Manchester, Bristol, Southampton, Birmingham, Glasgow, Belfast, Dundee, Paris, Antwerp, Rotterdam, Copenhagen and Prague

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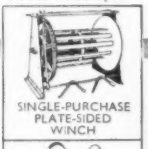
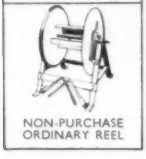
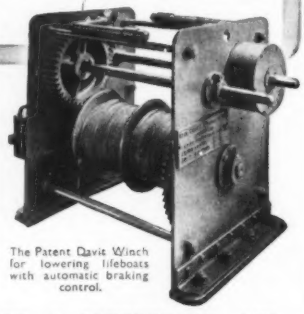


SINGLE-PURCHASE PLATE-SIDED WINCH



NON-PURCHASE ORDINARY REEL



The Patent Davit Winch for lowering lifeboats with automatic braking control.

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Monthly Air Transport Section

SEATING ARRANGEMENTS FOR SAFETY

THE ADVANTAGES OF BACKWARD FACING SEATS

By ALBATROSS

AS CRASH landings or similar accidents are not a frequent occurrence, it may be some time before the air travelling public becomes properly aware of the greatly increased safety of backward facing seats. These seats are used in all the new aircraft of the R.A.F. Transport Command and have already saved a number of lives. When their passengers realise this the air lines will rapidly be forced to forget all their excuses for not fitting safety seats and incorporate them in all aircraft without delay. Backward facing seats, though an accurate description, is an unfortunate name as it implies something awkward and unusual. Safety seat would be a far more apt name, emphasising the really important difference between this type and the conventional seat, at the same time giving no prominence to what is largely an imaginary inconvenience.

The R.A.F. insistence on backward facing passenger seats, which will withstand very high decelerations, is based on sound physiological grounds confirmed by many experiments. In the normal forward facing seat with a safety belt, the effect of the aeroplane coming to a sudden stop is to double-up the passenger like a jack knife (unless he is prevented from doing so by his head coming into forcible contact with the seat in front). The seat, belt and attachments are designed to withstand a deceleration of 6g, that is, six time acceleration due to gravity. For the purpose of this description, acceleration and deceleration are the same, as far as the effect on the passenger is concerned, the effect on the passenger in this case is in being suspended by the stomach, while weighing six times his normal weight.

Rates of Deceleration

There is obviously no use in making the seats and belts any stronger once the limit of what the passenger can stand has been reached. The standard safety harness used by pilots of the R.A.F. enables them to withstand much higher decelerations, but it would be quite impracticable to install such harness and anchorages for each passenger, even if they were not intimidated by its complexity of adjustment and implications of danger. With a backward facing seat the passenger's head and body are uniformly supported throughout, with the result that really fierce decelerations can be withstood with the minimum of discomfort or injury. No special or difficult action on the part of the passenger is required and he just lies back and relaxes.

A deceleration of 1g is a rate of change in velocity of 32.2 ft. per second, each second. At such a rate an aeroplane travelling at 100 m.p.h. would take 334 ft. to come to a stop. With a 6g deceleration, 193 ft./sec./sec., an aircraft would come to rest in 56 ft. But at 25g the rate of change of velocity is 805 ft./sec./sec., which would bring a 100-m.p.h. aeroplane to rest in 13 ft. A seating arrangement which will allow passengers to sustain such rapid decelerations without serious injury is obviously a potential life saver. Proof of this is given by the fact that 29 passengers in a R.A.F. Hastings aircraft escaped with their lives in a severe crash landing in North Africa last December, when all the crew were killed. Also 21 passengers escaped from a R.A.F. Valetta which crashed soon after take off from Stockholm airport last February. There is no doubt whatever that in these two accidents the number of fatalities would have been far greater than the number saved if the passengers had been sitting in forward facing seats, such as are used by most of our modern airliners. It has been stated by a medical authority of the Royal Aircraft Establishment, Farnborough, that backward facing seats capable of withstanding 25g would probably halve crash fatalities.

In view of their obvious theoretical advantages, confirmed by actual results in crash landings, it is surprising that neither the authorities responsible for formulating airworthiness requirements nor the airline operators have demanded that manufacturers fit safety seats for all passengers. A notable exception is the Australian Government, which has announced that backward facing seats will be fitted in all new Australian commercial aircraft. The British Air Registration Board has recently increased the deceleration factor from 6g to 9g, but does not demand backward facing seats. A spokesman of British European Airways Corporation is reported to have said that they did not use backward facing seats because of the weight penalty and consequent loss of payload. The Ministry of Civil Aviation says that it has this question very much in mind and has asked the Corporations to review their practice, with a view to adding a greater number of such seats.

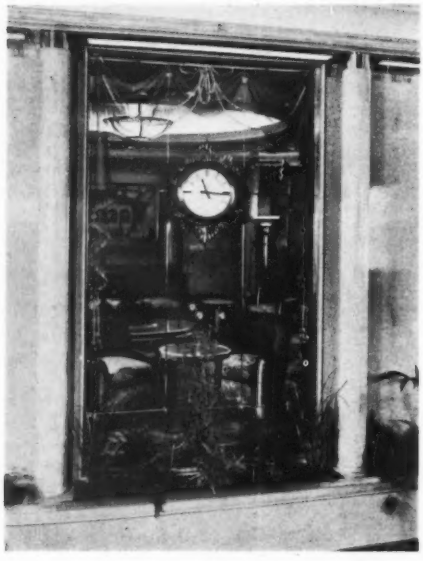
The Weight Penalty

There is no denying that to strengthen a seat and its supporting structure to take more than four times its present design load does involve a weight penalty. In the normal type of passenger seat, weighing say 25 lb., about half the total weight is structure, the rest being upholstery and fittings. However luxurious the seats may be, they are all designed to take the same load, so that the structure weight is about the same. Even with a 35 or 40-lb. seat, such as are fitted in some long-range aircraft, the structure will not amount to much over 12 lb. It should be possible, for a weight increase of 10 to 12 lb., to strengthen the seat to take 25g.

In a 40-seater aircraft this would involve a penalty equivalent to the weight of two passengers and their luggage. However, some of this loss might be regained by slightly less luxurious upholstery and fittings in the cabin. The argument that passengers will object to facing aft is more of a last ditch defence for the anti-safety seat brigade, than a serious and valid objection. Except for the actual take-off and landing the passenger does not sense things rushing past at high speed, as he would in a car or train; and in any case there are no trees, buildings or other objects anywhere near the runway. Once the aeroplane is in the air, even a very fast one, the change in the landscape, which is several thousand feet below, always appears leisurely.

It is sincerely to be hoped that the safety seat will not, like several other safety measures, be delayed until sufficient people have been killed to cause a public demand for its installation. So far neither the Ministry of Civil Aviation, the Air Registration Board nor the Corporations have shown any enthusiasm to provide the public with this proven improvement in safety.

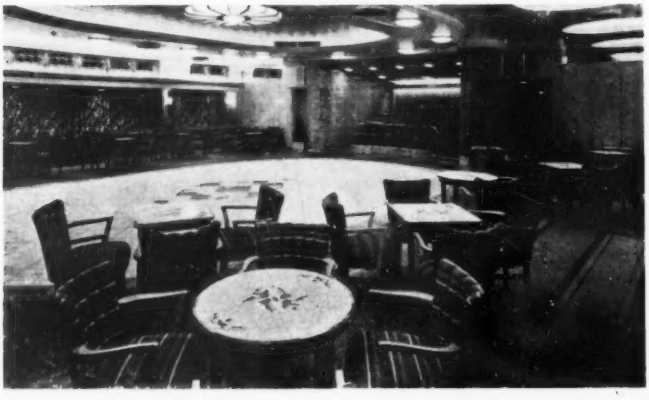
Increases in the frequency of several B.O.A.C. services from May 1 will provide accommodation for many more visitors to the Festival of Britain. The new de luxe *Monarch* service, operated by Stratocruisers, will fly daily in each direction between New York and London. There are also five other Stratocruiser services a week between London and New York and an innovation will be the introduction of a call at Boston twice a week. B.O.A.C. Stratocruiser services between London and Montreal are increased from three to four a week, one of them flying direct, the other three calling at Prestwick. The London/Nairobi service is now operated daily instead of four times a week.



Accommodation in the "Ocean Monarch"

A complete description of this vessel of 13,654 tons gross, built by Vickers-Armstrongs, Ltd., Walker, for Furness, Withy & Co., Ltd., was given in THE SHIPPING WORLD of April 4, with photographs and plans of the ship

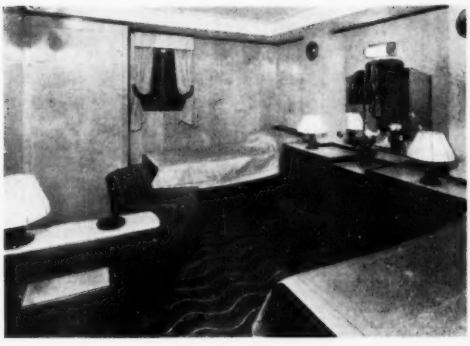
Left : This mirror is a central feature in the decoration of the Grand Lounge. It combines four colours, by means of a coloured silvering process developed by Reed Millican & Co., Ltd., of Market Street, Newcastle-upon-Tyne 1

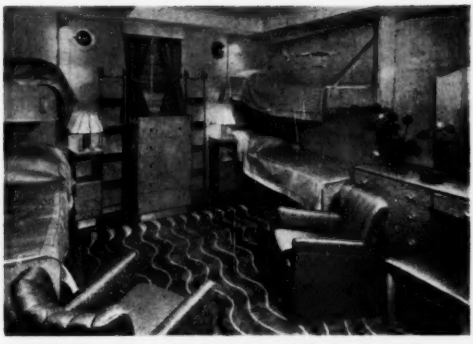


Centre : The Coral Cafe

Below (left) : Smokeroom bar

Below (right) : Dining saloon



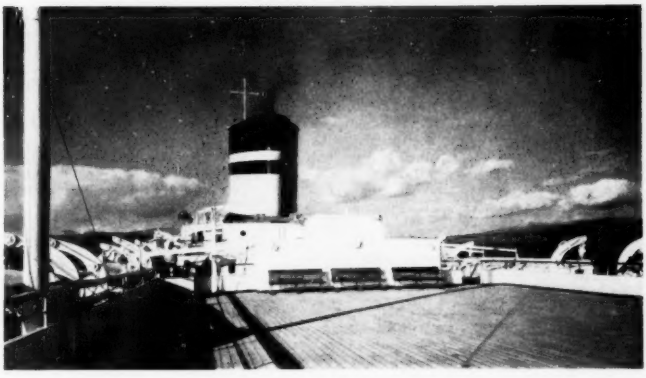


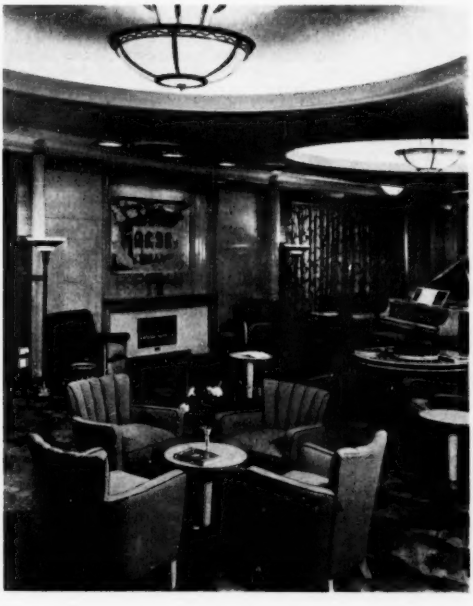
Above : Two-berth and four-berth state-rooms

Centre : Sports deck and all-aluminium funnel

Below (right) : The Grand Lounge, showing G.E.C. lighting fittings.

Below (left) : G.E.C. switchboard for plural starting system of main auxiliaries





ROUND THE SHIPYARDS

Work in Progress on Merseyside

By THE SHIPPING WORLD'S Own Correspondent

In certain respects the past month has proved the most satisfactory in regard to shipbuilding and ship-repairing evidenced for some little time. The outstanding feature of the month was undoubtedly the news that Cammell Laird & Co., Ltd., are to share in the vast tanker building programme announced by the Royal Dutch Shell group. The contracts allocated to the Birkenhead yard comprise one ship of 28,000 tons d.w. and five of 18,000 tons, the value of the orders being estimated at over £5,000,000. Cammell Laird's are also to supply the steam turbines for the vessels. The Birkenhead company is also building two turbine-driven tankers of 18,000 tons for the Eagle Oil & Shipping Co., Ltd. Including tonnage under construction and ships on order, the company now has in hand some 20 vessels aggregating nearly 300,000 tons, which will mean full-time employment for three years.

During the month Cammell Laird & Co., Ltd., completed the second of four tankers building for the Yacimientos Petroliferos Fiscales, of Buenos Aires. She is the *General Pueyrredon*, a tanker of 18,400 tons d.w. launched on December 12 of last year. An interesting contract completed during the month was the conversion of the aircraft carrier *Campania* into a floating exhibition for the Festival of Britain. The *Campania* arrived in the Mersey last May and was berthed in the Bidston Dock, where the work was carried out.

Refitting of Mersey Dredger

In contrast to the transformation of the *Campania*, the yard has been entrusted with the work of refitting and the conversion from coal-burning to oil-burning of the Liverpool dredger *Leviathan* (8,590 tons gross), one of the largest dredgers in the world. The announcement that the firm, which built the *Leviathan* in 1909, had been authorised to carry out this work was made by Mr. A. Parkin, chairman of the Works Committee of the Mersey Docks & Harbour Board. He said that it was at present impossible to undertake the necessary conservancy dredging without the vessel, as it would take at least three years to build a new ship, the cost of which would be about £1,500,000. The work will enable the dredger to remain in commission for a further 12 years. The *Leviathan* when built cost £150,000. She is a twin-screw vessel with a hopper capacity of 180,000 cu. ft. capable of filling itself with 10,000 tons of sand in 50 minutes from a maximum depth of 70 ft.

On the shiprepairing side the most welcome development of the month was the announcement that the ban on overtime working, which had been in force since January 29 in protest against the local employers' interpretation of the National Wage Award, had been lifted. This decision was made at a meeting attended by some 5,000 workers on April 22. With the lifting of the ban, negotiations will be reopened with the Mersey Association of the Shipbuilding Employers' Federation and the Birkenhead Shipbuilding Employers' Association. Failing agreement the matter would be discussed at conference level. The volume of shiprepair work on Merseyside, however, shows little change and is mainly confined to work of a general nature.

A pamphlet issued by David Brown & Sons (Huddersfield), Ltd., describes the company's range of gear-type flexible couplings. This type of coupling is complementary to the Brown "Cone-Ring" type of flexible coupling. Whereas the latter is intended to give torsional flexibility under conditions of fluctuating torque, the gear-type couplings are for use where slight variations in alignment are normally experienced. Flexibility in the coupling is ensured by the barreling and crowning of the external teeth in the coupling, allowing them to move freely through small angles within the circle of internal teeth.

British Industries Fair—II

New Features in the Industrial Section

This year's B.I.F. is no exception to the rule which has made it Britain's greatest annual industrial display. In particular, it is designed for the overseas buyer and industrialist, and every attempt is made to anticipate and satisfy their needs. Many of the principal exhibits at the industrial section of the B.I.F., Castle Bromwich, were described in last week's issue, and since then a representative of The Shipping World has had an opportunity of making a personal tour of the stands. The following are his notes on some further interesting exhibits of interest in the maritime industries:—

Smiths Industrial Instruments, Ltd., Cricklewood Works, London, N.W.2, are again showing a comprehensive range of instruments. Of particular interest is the Desynn Rudder Indicator, which provides accurate indication of the angle of the rudder in ships at all times, and, what is more important, instantaneous indication of any movement of the rudder. The equioment consists of a transmitter positioned by the movements of the rudder, and one or more indicators, sited on the bridge, in the wheelhouse, or any other situation where rudder indication is desirable.

Kango Electric Hammers Ltd., Lombard Road, South Wimbledon, London, S.W.19, are showing five types of Kango electric hammers, suitable for drilling, cutting away, sealing, clay digging, vibrating, etc. The full range of tools for use with Kango hammers is also shown.

Airscrew Company & Jicwood Ltd., of Weybridge, Surrey, are showing axial flow and centrifugal fans, dust collecting units, "Weyroc Man-made Timber," flooring, panelling and insulation materials.

Lamson Engineering Co. Ltd., Hythe Road, Willesden Junction, London, N.W.10, are exhibiting their message and parcel carrying systems, conveyors of all types, hoists, spiral and letter chutes, industrial vacuum cleaning, dust and fume removal.

Martindale Electric Co. Ltd., Westmorland Road, London, N.W.9, are exhibiting an entirely new product—the M.K.1 electric sprayer. It is a compact and ultra light-weight unit that will spray almost any medium at speeds up to one square yard per minute.

Coventry Climax Engines Ltd., Widdrington Road, Coventry, are this year exhibiting their mechanical handling equipment, including 1,500/6,000 lb. capacity diesel and petrol powered fork trucks. All Coventry Climax fork-lift trucks are now available with diesel or petrol power.

Newman Industries Ltd., Yate, Bristol, are again exhibiting their electric motors of from 1/12th to 40 h.p. Newman Industries are pioneers in the universal application of totally enclosed motors.

I.T.D. Limited, 95/9 Ladbroke Grove, London, W.11, exhibit their "Stacatruc" and "Aerolift" petrol and diesel and electric fork-lift trucks, and "Electricar" platform trucks, together with a full range of ancillary equipment.

The D.P. Battery Co. Ltd., Bakewell, Derbyshire, display a wide range of batteries for lighting plants, power stations, telephone exchanges, etc., from 10 to 65,000 amp./hrs capacity. Of special interest are the "Kathanode" submarine and marine batteries.

Auto Diesels Ltd., Uxbridge, Middlesex, display lighting and generating plants (120 to 750,000 watts) for industrial, marine and agricultural purposes. Also on view are their self-priming centrifugal pumps (1½ in., 2 in., 3 in., 4 in., 6 in. and 8 in.), diesel, petrol or electric motor driven.

Gent & Company Ltd., Faraday Works, Leicester, are exhibiting their well-known industrial and marine type electric clock systems. A point of interest is that all clocks throughout the B.I.F. buildings are controlled by the Gent's master clock which can be seen at the stand.

Vokes Ltd., Guildford, Surrey, are this year displaying a wide range of air, oil, fuel and air conditioning filters, and air intake and exhaust silencers. The dust recovery filter unit has a capacity of approximately 22,500 cu. ft. per minute.

Wrights' Ropes Ltd., Garrison Street, Birmingham, 9, are showing a wide range of steel ropes, hemp ropes and cords for bridges, aerial ropeways, lifts, cranes, shipping, fishing, whaling and yachting cables.

A summer school on "Welding Design and Engineering" is being held by the British Welding Research Association at Ashorne Hill, near Leamington Spa, Warwickshire, from May 25 to June 2.

BOOK REVIEWS

"*Quicksee*" *Distance and Speed Tables.* (Compiled and published by Ernest J. Quick, Reston, High Salvington, Sussex. Price, 27s. 6d.)

The fourth edition of this handy and easily consulted volume has been entirely re-edited and greatly extended to include ports, especially oil loading ports, which have come into general use since the war. The tables of distances are comprehensive, and coasting distances have been included in separate sections arranged geographically. The speed tables give times taken to cover from 25 to 14,000 miles at speeds ranging from 8 to 15 knots.

The British Sawmilling Classification of Timbers, 1951. (National Sawmilling Association, 14 New Bridge Street, London, E.C.4. Price, 10s. 6d.)

In recent years one of the most significant changes in the timber trades has been the influx of so many strange varieties of wood from all parts of the world, occasioned largely by the shortage of dollar woods. The importation of these new species brought new problems, but the National Sawmilling Association has now published this uniform system of classification, covering over 2,600 commercial names of timbers. This will fill a long-felt need in the timber trade and also for users of timber.

Seafarers, Ships and Cargoes, edited by Leonard Brooks and L. H. Duce. (University of London Press, Ltd., Warwick Square, London, E.C.4. Gift edition 10s. 6d., school edition 8s. 6d.)

This book is published in cooperation with the British Ship Adoption Society and is primarily designed for use in schools, and will probably be found most useful in secondary schools. Except for two chapters, the whole book has been written by members of ships' crews—navigating, engineer and radio officers, and stewards, etc.—as part of their normal correspondence with their ship's adopted school. The first section gives authentic descriptions of how ships are built and operated, how cargoes are stowed, and so on, but the main part of the book describes typical voyages, with an accent on their geographical aspects. It is accompanied with many first-class illustrations of shipboard life, and will undoubtedly foster an interest in the shipping industry as well as in geography.

OFFICIAL NOTICES

New Companies

ALSCOT SHIPPING CO., LTD.—Private company. Registered in Edinburgh, April 24. Capital £100 in £1 shares. Directors: Leslie H. Gault, Triegelly, Cranbrook, Kent; Alexander R. Glen, 6 Trevor Place, London, S.W.7; Charles Connell, Craigallian, Milingaere, Glasgow; John C. Denholm and William L. Denholm. Secretary: Leslie F. Shearer. Registered office: 37 Renfield Street, Glasgow, C.2.

Increases of Capital

GAMECOCK TUGS, LTD., tug owners, etc., 112 Fenchurch Street, London, E.C.3, increased by £19,000, in £1 ordinary shares, beyond the registered capital of £1,000.

ROWAN & BODEN, LTD., ship furnishers, etc., 93 Bothwell St., Glasgow, C.2.—Increased by £100,000, in 400,000 ordinary shares of 5s., beyond the registered capital of £380,000.

FENTON TRUST, LTD., 112 Fenchurch Street, London, E.C.3, increased by £50,000, in £1 ordinary shares, beyond the registered capital of £50,000. At December 31, 1949, The Purvis Shipping Co., Ltd., held 47,000 shares of £1 out of 50,000 issued.

PORT OF LONDON MASTER PORTERS & STEVEDORING CO., LTD., 101 Leadenhall St., London, E.C.3.—Increased by £38,000, in 8,000 ordinary and 30,000 5 per cent non-cumulative preference shares of £1 each, beyond the registered capital of £2,000.

SHIP MORTGAGE FINANCE CO., LTD., 7 Drapers Gardens, London, E.C.2, increased by £999,900, in £1 ordinary shares, beyond the registered capital of £100. All shares allotted for cash between April 2 and April 12. Allottees included Industrial & Commercial Finance Corporation, Ltd. (199,998); Birchin Lane Nominees, Ltd. (250,000); Eagle Star Insurance Co., Ltd., "D" a/c (100,000); Sun Life Assurance Society (100,000); Legal & General Assurance Society, Ltd. (100,000); Hambro's Bank (Nominees), Ltd. (100,000); Friends Provident & Century Life Office (50,000); Atlas Assurance Co., Ltd. (25,000); General Reversionary & Investment Co. (25,000); Northern Assurance Co., Ltd. (20,000); Union Pension Trust Ltd., (20,000); and Refuge Assurance Co., Ltd. (10,000).

Cargo Vessels with Machinery Aft

French Shipbuilding Programme Nearing Completion

THE LAST of the 18 interesting cargo vessels, designed with machinery aft according to the ideas of the Société Générale de Gerance et d'Armament (S.A.G.A.), are now approaching completion in French shipyards. They are remarkable for their propelling machinery, which consists of six high-speed diesel engines coupled three to each of two shafts. There are two principal sizes, four of them being of about 6,625 tons d.w. and 14 of about 3,300 tons d.w. One of the former class, the *Saint-Jean*, was launched in April by the Société des Chantiers et Ateliers de St. Nazaire Penhoet, and one of the smaller types, the *Oranie*, was launched in the same month by the Ateliers et Chantiers de la Loire. A sister ship of the *Oranie*, the *Tunisie*, was due to be launched at Nantes, but owing to a rise in the level of the Loire this launching had to be postponed until this month, during which the Penhoet yard will also launch the *Saint-Luc*, a sister ship to the *Saint-Jean*. These vessels have been allocated to various companies interested in the French West Africa and North Africa services, and this accounts for some variations in the internal arrangement of these vessels. Three of the 3,300-tons vessels, for example, were fitted out as wine tankers, the *Dunkerquois* and *Brestois* with 39 wine tanks and the *Rouennais* with 33. All these vessels have accommodation for 12 passengers in comfortable quarters, consisting of two-berth cabins, lounge, bar and dining saloon.

The principal particulars of the *Saint-Jean* and the *Oranie* are as follows:—

	Saint-Jean	*Oranie*
Length overall	435 ft. 9 in.	371 ft. 11 in.
Length b.p.	401 ft. 3 in.	346 ft. 6 in.
Moulded beam	62 ft. 7 in.	54 ft. 2 in.
Depth to shelter deck	37 ft. 7 in.	30 ft. 10.5 in.
Load draught	23 ft. 2 in.	18 ft. 10 in.
Gross tonnage	5,533 tons	2,887 tons
Full load displacement	11,017 tons	6,547 tons
Corresponding deadweight	6,625 tons	3,707 tons
Normal h.p.	8,300 h.p.	6,360 h.p.
Corresponding service speed	17 knots	16.5 knots

Both ships are of the shelterdeck type, with two decks, rounded raked stem and cruiser stern. Both have four holds, the capacity of the *Saint-Jean* being 13,060 cubic metres grain and 12,300 cubic metres bale, including tweendecks. The hatches are 23 ft. wide, fitted with MacGregor steel hatch covers. They are served by 23 derricks, of which 14 have a capacity of 5 tons, six of 10 tons, two of 2 tons and one of 40 tons, operated by 20 electric winches. The holds of the *Oranie* class have a capacity of 6,708 cubic metres, with hatches 18 ft. 1 in. wide, served by ten 8-tons derricks.

Except for six of the smaller class which were built in the United States and equipped with Nordberg diesel engines, all the French-built vessels in this programme have M.A.N. units, constructed either by the Société Générale de Constructions Mécaniques (S.G.C.M.) or by the Ateliers et Chantiers de Bretagne. They are 6-cyl. four-stroke single-acting engines running at 250 r.p.m., driving the twin shafts at 140 r.p.m. through electro-magnetic slip couplings, of Asea type in the *Saint-Jean* and of Vulkan type in the *Oranie* class. Only two of each set of three engines are reversible. The third can be used to drive, through a clutch, a generator for handling the port load of winches and other auxiliaries, supplying current at 550/500 kW. There are also two auxiliary boilers, one of which is a waste heat boiler supplying steam at a temperature of 335 deg. C. and a pressure of 15 Kg/sq. cm. The *Saint-Jean* attained a speed of over 18 knots on trials.

British Railways Steamship Services

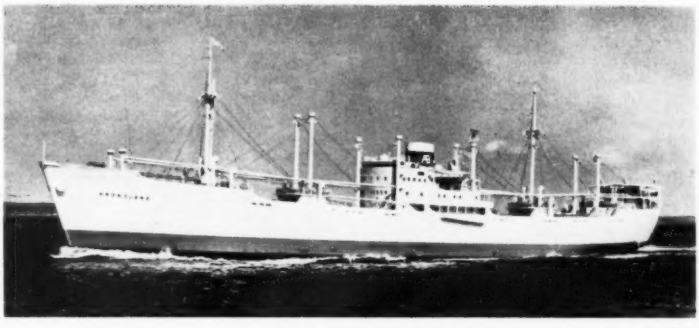
Details of improved steamship services have been announced by British Railways, and it is reported that the Railways Executive is to order five new vessels for the Clyde services. The new 3,200-tons motorship *Norfolk Ferry* will soon be operating on the Harwich/Zeebrugge train ferry cargo service, giving increased services for exports and imports in through wagons between Great Britain and the Continent. Another motor vessel, the 830-tons *Shanklin*, will replace the former paddle steamer of the same name on the Portsmouth/Ryde services. The steamship *Duke of York*, following conversion to oil fuel, and additions and improvements to passenger accommodation, will go into service on the Holyhead/Eire route between July 3 and September 18. The *Princess Maud* will operate from Southampton to provide an increased service on the St. Malo route. On the Holyhead route the motorships *Cambria* and *Hibernia* will have "anti-roll" stabilisers (as in the *Invicta* and *Falaise*) fitted in time for the summer service.

Cargo Steamer "Merchant Duke"

The single-screw cargo steamer *Merchant Duke* has been delivered to the Drake Shipping Co., Ltd., by William Gray & Co., Ltd. Of 5,890 tons gross, she carries a deadweight of about 10,000 tons on a draught of 26 ft. 4 in. Her principal dimensions are 457 ft. 6 in. length o.a., 57 ft. 8½ in. breadth extreme and 38 ft. 3 in. depth to shelter deck. There are five cargo holds and five hatches, each hatch being served by two 5-ton derricks. A 30-ton derrick is fitted at No. 2 hatchway. The propelling machinery has been supplied by the shipbuilders and consists of a triple-expansion steam engine providing the vessel with a trial speed of 12 knots

Swedish Motorship "Kronoland"

Of 5,226 ton gross, the single-screw cargo motorship *Kronoland* has been completed by Eriksbergs Mek. Verkstads A B, Gothenburg, for Angfartygs A B Tirfing, of Gothenburg. She is of the shelterdeck type with a deadweight capacity of 8,950 tons on a draught of 25 ft. 2½ in. Her dimensions are 420 ft. length b.p., 58 ft. breadth moulded and 37 ft. 6 in. depth moulded. There are five main cargo holds. Her single screw is driven by a 6-cylinder two-stroke single-acting B. & W. type diesel engine. Supplied by the shipbuilders, this engine provides the ship with a fully loaded speed of 14½ knots

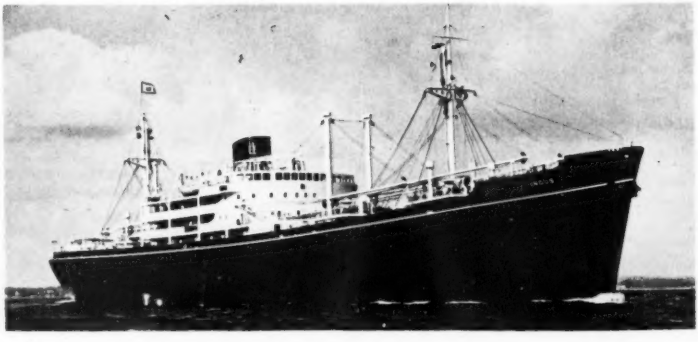


Danish Cargo Liner "Magdala"

The motorship *Magdala* is the latest in the series of "M"-type cargo liners building for the East Asiatic Company, of Copenhagen. Built by A S Nakskov Skibsvaerft, Nakskov, she is a single-screw vessel of 8,414 tons gross and 10,200 tons d.w. She is of 474 ft. 6 in. in length o.a., 445 ft. b.p., 61 ft. breadth moulded and of 38 ft. 3 in. in depth to shelter deck. The cargo-handling gear includes one 60-ton, and one 20-ton derrick. The propelling machinery, supplied by Burmeister & Wain, Copenhagen, consists of a 6-cylinder two-stroke single-acting diesel engine which develops 6,850 i.h.p. and gives the ship a fully loaded speed of 15 knots

French Cargo Liner "Indus"

The delivery has taken place of the twin-screw motor cargo liner *Indus*, built by A S Burmeister & Wain, Copenhagen, for operation by Compagnie des Messageries Maritimes, Paris. She is a vessel of some 6,744 tons gross, with dimensions of 447.2 ft. length b.p., 61.4 ft. breadth and 38.4 ft. depth to upper deck. Her deadweight capacity is about 8,950 metric tons on a draught to summer loadline of 25.8 ft. The five cargo holds have been fitted with an extra tweendeck. Her twin screws are driven by two 6-cylinder two-stroke single-acting diesel engines supplied by the shipbuilders, developing a total of about 7,100 b.h.p. at 148 r.p.m., providing a service speed of 16 knots



NEW CONTRACTS

Yards in Great Britain and Northern Ireland

Shipowners	No. of Ships	Type	Approximate Tonnages: Gross	Approximate Tonnages: Deadweight	Dimensions (ft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
C. M. Los Sons & A. K. Pezas, Greece	1	Cargo	—	10,850	—	—	B. & W. diesel	—	—	Bartram
Helmer Staubo & Co., Oslo	1	Cargo liner*	—	8,500	—	15	5-cyl. Doxford diesel	—	Wallsend Slipway & Eng. Co.	Swan, Hunter & Wigham Richardson, Wallsend
Trinidad Leaseholds, Ltd.	1	Tanker	—	15,500	—	—	Doxford diesel	—	D. Rowan	Blythswood S.B.
Railway Executive	1	Pass. and cargo	—	—	—	—	Diesel	—	—	Ailsa S.B.
Alfred Holt & Co.	1	Cargo liner†	8,300	—	452.75 b.p. × 62 × 35.25	16	Harland-B. & W. diesel	—	John G. Kincaid	Vickers-Armstrongs, Walker
United Whalers	1	Tanker	—	18,000	—	15	Diesel	—	—	Lithgows

Commonwealth and Foreign Yards

Odd Godager, Oslo; and Skibs A/S Oiltank, Tonsberg (1 each)	2	Tankers	—	18,500 (each)	—	—	Diesel	—	—	Uddevallavarvet
Reederei Willy Bruns G.m.b.H., Hamburg	2	Cargo‡	3,400 (each)	4,850 (each)	313.3 b.p. × 48.2	—	Diesel	—	—	H. C. Stulcken Sohn
—	1	Coaster	300	—	—	—	Diesel	—	—	Werft Berninghaus Duisburg
—	1	River tanker	—	—	—	—	Diesel	—	—	Werft Berninghaus
Cia. Colonial de Nav.	1	Passenger liner	22,000	—	603.7 (long)	21	Tw.-scr Parsons turbines	24,200	Shipbuilders	S. A. John Cockerill, Hoboken
Texas Co., New York	4	Tankers	—	18,000 (each)	—	17	—	—	—	Newports News S.B. & D.D. Co.
Wilh. Wilhelmsen, Oslo	1	Cargo liner	—	10,300	—	17	Diesel	—	—	Kockums M.V., Malmo
Rederi A/B Transatlantic, Gothenburg	2	Cargo	—	4,800 (each)	—	14	M.A.N. diesel	—	—	Lubecker Masch.-Ges.
U.S.S.R.	8	Trawlers	—	—	—	—	—	—	—	Danish yards

* Additional particulars of a contract reported in last week's SHIPPING WORLD as having been placed by Oslo owners. † Additional details of an order reported in last week's issue. ‡ In place of two fruit carriers originally ordered.

TRIAL TRIPS

Yards in Great Britain and Northern Ireland

Date	Shipowners	Ship's Name and/or Yard No.	Type	Approximate Tonnages: Gross	Approximate Tonnages: Deadweight	Dimensions (ft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
April —	David MacBrayne & Co.	*Loch Carron* (413)	Cargo and cattle	683	600	190 b.p. × 34 × 12.25	11	Atlas Polar diesel	—	—	Ardrossan Dockyard
Apr. —	Rederi A/B Svenska Lloyd, Gothenburg	*Patricia* (1884)	Pass. and cargo liner	7,700	2,300	415.5 b.p. × 58 × 31.75	19	Sin.-scr. sin.-red. geared turbines	—	Parsons Marine	Swan, Hunter & Wigham Richardson, Walker
April 25 & 26	British Tanker Co.	*British Seafarer* (703)	Tanker	11,200	16,000	547 o.a. × 69.5 × 37.5	—	Sin.-scr., 6-cyl. Doxford diesel	6,400	Shipbuilders	R. & W. Hawthorn, Leslie
April 26	Icelandic Govt.	*Drofn* (826)	Trawler	720	—	136 × 30 × 16	—	Tr.-exp. steam	—	Shipbuilders	Hall, Russell
April 26	Bowring S.S. Co. (on long-term charter to Regent Pet. Tankship Co.)	*Regent Caribou* (96)	Tanker	11,800	17,600	516 b.p. × 70.5 × 38	13	Sin.-scr., 5-cyl., 2-str. Doxford diesel	5,600	David Rowan	Blythswood S.B.
May —	N.V. Stoomv. Maats. Nederland, Amsterdam	*Billiton* (483)	Cargo liner	7,444	10,900	493 o.a. and 465 b.p. × 66 × 33	16	Sin.-scr. dble.-red. geared turbines	9,350	International G.E.C., Schenectady	Caledon S.B.
May —	New Zealand Shipping Co.	*Ruahine* (658)	Pass. and refrig. cargo	18,500	—	585 o.a. × 75 × 48.5	18	Tw.-scr., 6-cyl. Doxford diesel	—	Shipbuilders	John Brown

Commonwealth and Foreign Yards

—	China Nav. Co.	*Anshun*	Pass. and cargo	6,100	4,610	417.16 o.a. × 56.5 × 21 (draught)	15	Sin.-scr. Doxford diesel	4,500	Scotts' S.B. & E. Co., Greenock	Taikoo Dockyard & Eng. Co., Hong Kong
—	D. G. Neptun	*Hestia*	Cargo	—	4,000	272.33 × 42.58	12	Sin.-scr. Wumag diesels	1,600	—	A.G. "Weser," Werk Seebeck, Bremerhaven
—	Mathies Reederei	*Norrland*	Cargo	—	3,100	285 (long)	12	Sin.-scr., 4-str. M.A.N. diesels	1,600	—	H. C. Stulcken Sohn
—	Rob. M. Sloman, Jnr.	*Palermo* (625)	Cargo	2,214	3,300	—	12	Sin.-scr., 4-str. M.A.N. diesels	1,600	—	Deutsche Werft, Hamburg
—	California Transport Corp.	*Robert Watt Miller* (4484)	Tanker	16,073	28,000	623 o.a. and 595 b.p. × 84 × 33 (draught)	16	Dble.-red geared turbine	13,750	—	Bethlehem Sparrows Point Shipyard, Md.
—	Argentine Govt.	*Yapeyu* (753)	Pass. and cargo	12,000	7,000	523 o.a. and 480 b.p. × 64 × 46.5	17	Tw.-scr., 10-cyl., 2-str. Sulzer diesel	10,000	N.V. Werkspoor, Amsterdam	C. Van der Giessen & Zonen's Scheeps., Krimpen a/d Ijssel
—	Cie. France-Nav.	*Yombe* (346)	Cargo	4,134	7,080	399.58 b.p. × 55.75 × 24	15.5	8-cyl. Sulzer diesel	5,000	—	Atel. et Ch. de la Loire, St. Nazaire
April —	S.A. di Nav. Lloyd Triestino	*Australia*	Pass. liner	13,000	7,700	501 × 69.4 × 28.6	18	Tw.-scr., 5-cyl., 2-str. Sulzer diesel	14,000	Shipbuilders	Cant. Riuniti dell' Adriatico, Trieste
April —	Jugoslavenska Linijska Plovidba	*Crna Gora*	Cargo	5,799	9,000	435 × 59 × 39.5	16	Sin.-scr., 6-cyl. Stork diesel	6,250	Shipbuilders	Netherlands Dock & S.B. Co., Amsterdam
April —	J. Ludwig Mowinckels Rederi A/S, Bergen	*Rygia* (430)	Tanker	10,426	16,000	521.7 o.a. and 495.4 b.p. × 67.8 × 36.45	13.75	Sin.-scr., 6-cyl. Stork diesel	5,500	Shipbuilders	Netherlands Dock & S.B. Co.
April 12	Angfartygs A/B Tirfing, Gothenburg	*Kronoland* (404)	Cargo liner	5,226	8,950	420 b.p. × 58 × 37.5	14.25	Sin.-scr., 6-cyl., 2-str. B. & W. diesel	—	Shipbuilders	Eriksbergs M.V., Gothenburg
April 13	Messageries Maritimes	*Indus* (670)	Cargo liner	6,744	8,950 (metric)	447.2 b.p. × 61.4 × 38.4	—	Tw.-scr., 6-cyl., 2-str. diesel	8,850	Shipbuilders	Burmeister & Wain, Copenhagen

MARITIME NEWS IN BRIEF

From Correspondents at Home and Overseas

Coast Lines, Ltd., have announced the appointment of Mr. H. G. Sorrell as assistant general manager, London. Mr. Sorrell joined Coast Lines after the First World War. During the Second World War he served in the Ministry of War Transport, becoming deputy director of the coasting division in 1946. He returned to Coast Lines in 1949 and was appointed manager in 1950. Other appointments announced by Coast Lines are those of Mr. C. V. Jones to be assistant general manager, Liverpool, Mr. H. M. Clarke, who becomes London manager, Mr. R. E. Large, joint manager (coastal services), Liverpool, and Mr. T. H. Manuel, assistant manager (cross-channel services), Liverpool.

The death has occurred at the age of 59 of Mr. R. A. Carder, chairman and managing director of the Esso Petroleum Co., Ltd. (formerly the Anglo-American Oil Co., Ltd.). Mr. Carder joined the company in 1920 as secretarial assistant. He was elected a director in 1933, becoming managing director in 1940 and chairman and managing director in 1949. He was also on the boards of a number of associated companies.

Mr. J. J. Carter has retired as managing director of Crossley Brothers, Ltd., after holding the position for 35 years. At the request of his co-directors he is to remain on the board of the company. He is succeeded as managing director by Mr. H. D. Carter, director and chief engineer.

Mr. E. C. Haslam (chairman, Newbigin Steamship Co., Ltd.), has been appointed chairman of the North of England Shipowners' Association in succession to Mr. D. M. Robinson, and Mr. D. Souter (director, W. A. Souter & Co., Ltd.), vice-president.

At the annual meeting of the Newcastle-on-Tyne District Association of Chartered Shipbrokers, Mr. R. K. Bowe was elected president, and Mr. P. B. Errington chairman.

Mr. George Smith has been appointed a director of the Glen Line, Ltd.

* * * *

Dr. H. H. Blache was presented with the 1951 James Watt International Medal of the Institution of Mechanical Engineers at a general meeting of the Institution on Friday of last week. Dr. Blache, who was managing director of Burmeister & Wain, Copenhagen, from 1919-1935, was awarded the medal for his contributions to the advancement of mechanical engineering, and particularly for his pioneer work in the development of the large marine diesel engine. At the same meeting he was elected an honorary member of the Institution.

A stock of spare parts for Liberty ships and T2 tankers operating in the Mediterranean area has been established by a New York firm in the free port zone of Genoa, and in an emergency can be delivered by air to any port in the Mediterranean area. No Italian import or export documents will be required. It has been estimated that there are 300 to 400 Liberty ships and T2 tankers operating in the area.

Visitors from the Netherlands, Belgium, Italy, France, Portugal, and British Guiana are studying the fumigating of ships, ways of dealing with rodents in docks and vessels, and systems of examining imported foodstuffs at a British Council course on "Port Health and Sanitary Control" which opened in London on April 23.

Orders recently placed with British Polar Engines, Ltd., include an M48M type engine of 1,500 h.p. for a collier building by the Grangemouth Dockyard Co., Ltd., for Stephenson Clarke, Ltd., and an 850 h.p. M45M engine for a coaster building by Scott & Sons for Newry owners.

The death has occurred of Mr. B. J. W. Leach, who had been with the West Hartlepool Steam Navigation Co., Ltd., for about 26 years, and had been a director since 1948. He was elected a member of the Baltic Exchange in 1923.

The American Ambassador will unveil a memorial to the Virginia Settlers at Blackwall on May 18.

* * * *

At the annual general meeting of the Aluminium Development Association, Mr. Austyn Reynolds was elected president for this year and Mr. H. G. Herrington, of High Duty Alloys, Ltd., vice-president. Mr. F. G. Woollard was re-elected chairman of the executive committee. Mr. Reynolds is a director of Tube Investments, Ltd., and deputy chairman of T.I. Aluminium, Ltd., and associated aluminium companies. He has served on the council of the A.D.A. for six years and was vice-president during the past year.

According to the International Civil Aviation Organisation, passenger mileage of the world's civil airlines in 1950, at 16,404 mn., was more than 18 times as great as in 1937 (885 mn.). Passengers carried in 1950 totalled more than seven times the 1937 figure. During the period 1947 to 1950, cargo transport by air increased by more than 150 per cent, while passengers carried increased by 44 per cent.

The Swedish American Line's passenger vessels *Gripsholm* and *Stockholm* carried 13,145 westbound and 12,394 eastbound passengers in 1950. These figures are slightly less than in 1949 due to the *Gripsholm* being laid up for a two months' reconversion.

The death has occurred of Mr. J. M. Dalgleish, chairman of Stelp & Leighton, Ltd., and J. H. Wackerbarth & Co., Ltd. Mr. Dalgleish was an underwriting member at Lloyd's.

Mr. R. W. Ryan, executive assistant to the president, has been appointed vice-president of Canadian Pacific Airlines.

The address of John Bretland, Ltd., is now 37 Victoria Street, Liverpool 2 (P.O. Box 40).

A review of commercial conditions in Japan has been published by H.M. Stationery Office, price 1s.

North East Coast Inst. of Engineers & Shipbuilders

AT THE recent general meeting of the North East Coast Institution of Engineers and Shipbuilders Mr. W. S. Paulin and Mr. T. Eustace Smith were elected ordinary members of the non-associates section of the council. Mr. Paulin (*left*) is managing director of Donkin & Co., Ltd. He served his apprenticeship with the North Eastern Marine Engineering Co. during 1923-28, joining Donkin & Co. in 1931. In 1935 he was appointed works manager, becoming director and general manager in 1938. He was appointed managing director in February of this year. He is a past president of Armstrong College Engineering Society (1928-29) and was chairman of the graduate section of the North East Coast Institution in 1932-33. He was an ordinary member of the council of the N.E.C. during 1942-45, and was vice-president in 1945-51. Mr. Paulin was awarded the Reed Medal by the Institution in 1932. Mr. T. Eustace Smith (*right*) is joint managing director of Smith's Dock Co., Ltd. He is a vice-president of the Shipbuilding Employers' Federation

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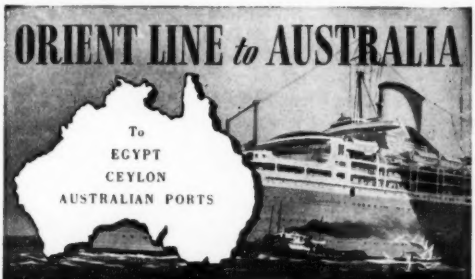

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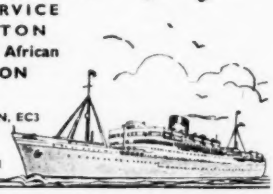

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INDEX TO ADVERTISERS IN THIS ISSUE

	Page
Alexander, W. H. J., Ltd.	A15
Anderson, Green & Co., Ltd.	A18
Anglo-Baltic Lines	A19
Argentine Airlines	A4
Bank Line	A19
Bibby Brothers & Co.	A18
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Kwells	A20
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Mersey Docks & Harbour Board	A6
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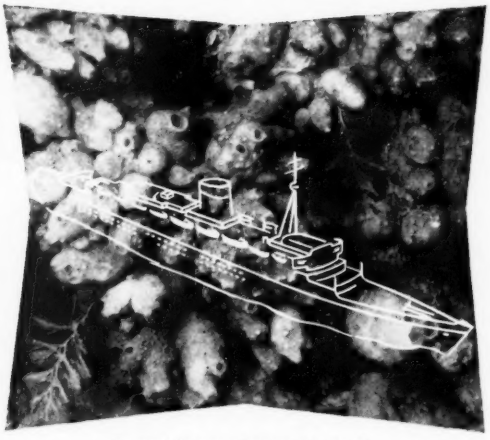

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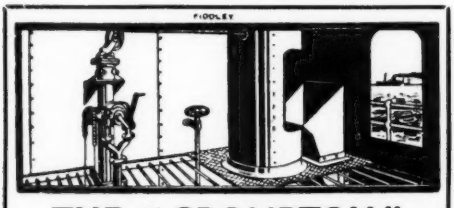

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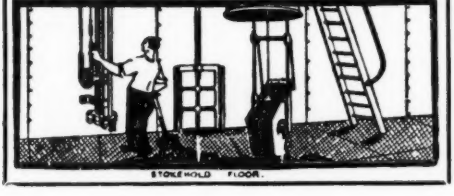

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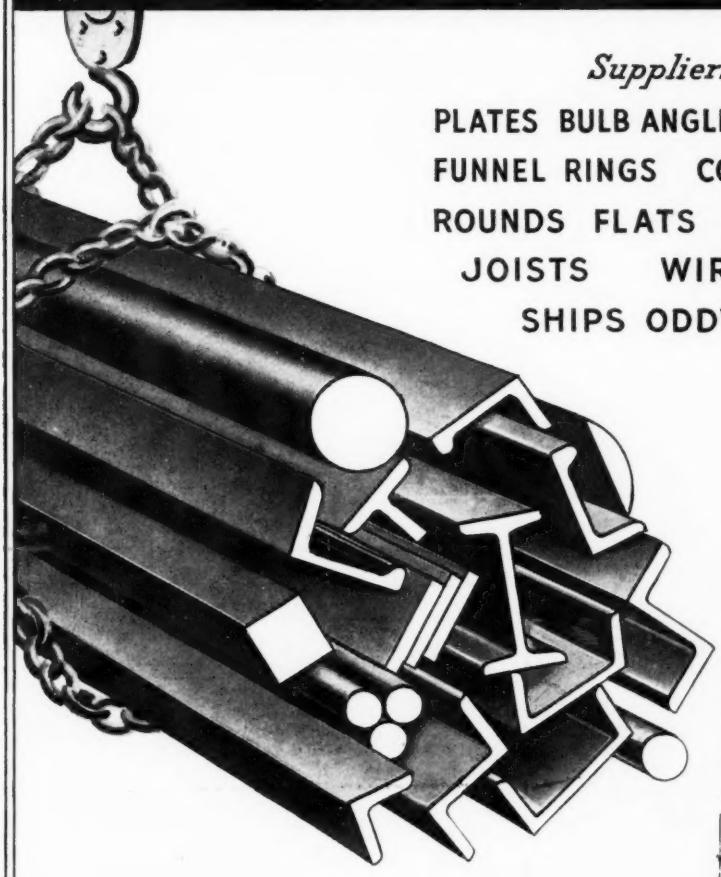

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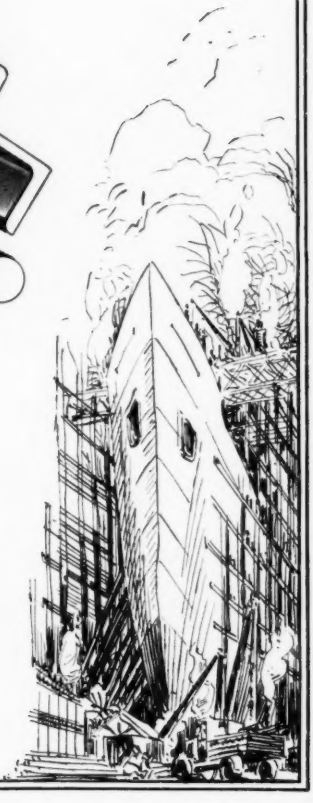

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